

SKIN DIVER

MAGAZINE

JUNE
1959
35c
ART AND MUSIC

LA PAZ

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COBRA OF THE SEA

DAINTY DIVING DAUGHTER

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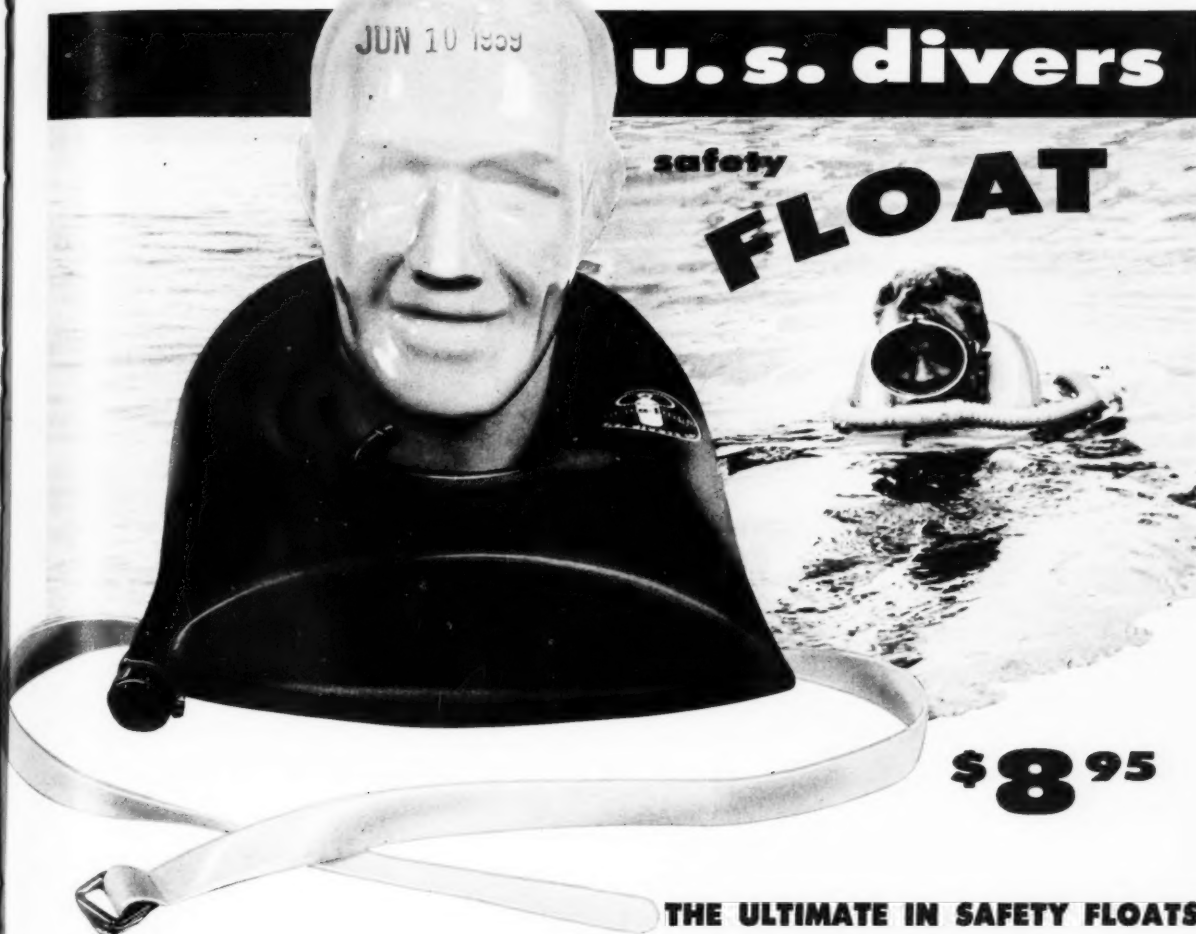
ART AND MUSIC

JUN 10 1969

u.s. divers

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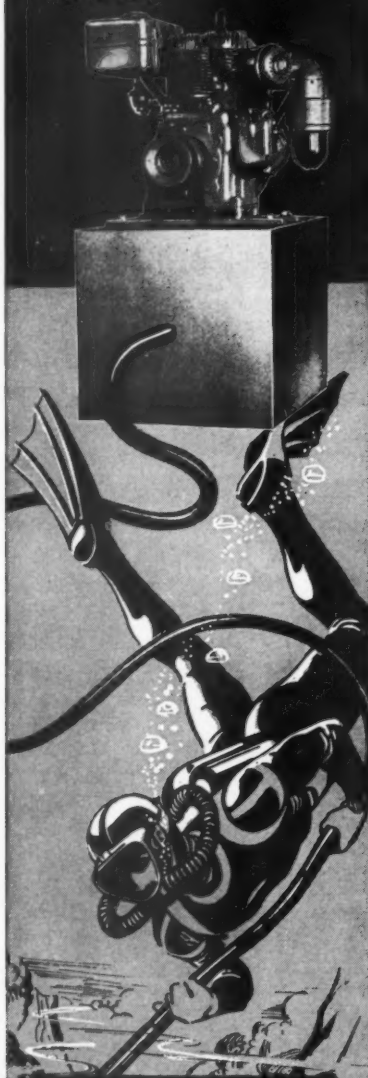


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leading manufacturer of low cost gold dredges



TO VISIT NEW YORK

By Jim Dugan

Captain Jacques-Yves Cousteau's famous undersea exploring vessel, the *Calypso*, is due in New York in September during the International Oceanographic Congress at United Nations headquarters. The call will be made during a five-month cruise exploring Atlantic seamounts, continental shelves, and ocean deeps with new depth cameras and vehicles.

The ship's company is expected to include Cousteau, Commandant; Jean Alinat, deputy leader of *Calypso* Expeditions; Skipper Francois Saout; André Laban, director of the OFRS undersea engineering laboratory; Albert Falco, chief diver, and others seen in the motion picture, *The Silent World*.

Captain Cousteau, who is President of the World Underwater Confederation, has invited members of the Underwater Society of America to visit the *Calypso* in New York from the 3rd to the 7th of September inclusive. This is over Labor Day weekend. Invitations to inspect the ship will be handled by the Empire State Underwater Council. Non-members of diving clubs may secure invitations through Empire State, after members have been accommodated. Captain Cousteau is donating proceeds of the admission charge to the Underwater Society of America.

Due to space limitations on board and the brevity of the ship's stay the Council urges diving clubs to send applications early. The deadline is August first, but if capacity is reached before then the visitors' roll will have to be closed.

INVITATIONS TO VISIT THE CALYPSO

For members of clubs affiliated with the Underwater Society of America:

- Club secretaries should list on club stationery the names of those wishing to visit the *Calypso*.
- One dollar must be enclosed for each invitation (all proceeds to go to the Underwater Society of America).
- A stamped, self-addressed envelope must be enclosed for each applicant.
- Each applicant should pick a day from the 3rd to 7th of September, inclusive, which the council will try to assign, or will give the nearest available date to it.
- Applicants will receive invitations to board at a given hour.

For non-members of clubs affiliated with the Underwater Society:

Send your name, one dollar and a self-addressed, stamped envelope, indicating date you would like to visit (3-7 Sept.). Your invitation will be issued after club applications are filled. If visiting capacity is reached your dollar will be returned.

ALL APPLICATIONS, MONEY AND SELF-ADDRESSED, STAMPED ENVELOPES MUST BE POSTMARKED BEFORE AUGUST 1, 1959.

If, due to unforeseen circumstances, the *Calypso* is required for scientific work on your appointed day, the council will try to give you another date, or will return your money.

No blank invitations can be issued. Children under sixteen cannot be taken aboard.

Checks or money orders should be made to: CALYPSO RECEPTION COMMITTEE: U.S.A.

Applications, remittances, and stamped, self-addressed envelopes should be addressed to: CALYPSO RECEPTION COMMITTEE: U.S.A., EMPIRE STATE UNDERWATER COUNCIL, P.O. BOX 165, FLUSHING 55, NEW YORK.

Do yourself and the host council a favor by sending applications early.



"aqua-lung"

"aqua-master"

THE LATEST COUSTEAU-GAGNAN DEVELOPMENT



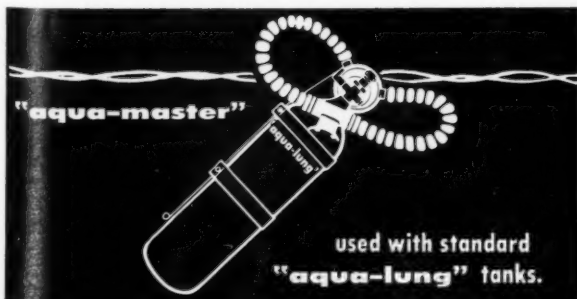
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"aqua-master"
WITH VENTURI ACTION
FEATURES A HOOKAH
ATTACHMENT.

THIS ADVANCED DESIGN
IS THE MOST VERSATILE
REGULATOR EVER BUILT.



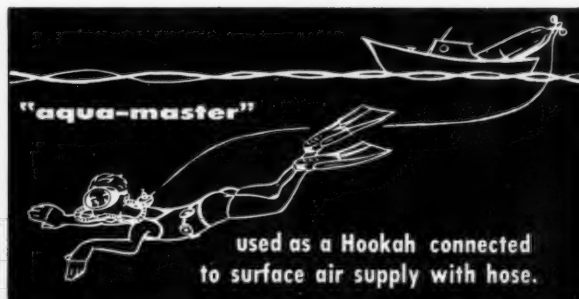
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**THE MOST ADVANCED,
LIGHTEST BREATHING REGULATOR EVER BUILT.**



"aqua-master"

used with standard
"aqua-lung" tanks.



"aqua-master"

used as a Hookah connected
to surface air supply with hose.

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The WATERLUNG is available with or without the Sea-View Pressure Gauge. Installs directly in First Stage.

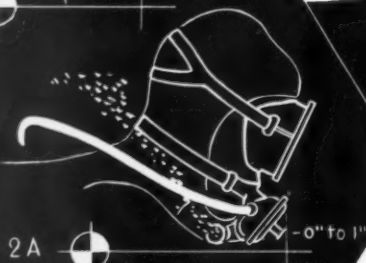


Indicates approximate center of human lung.

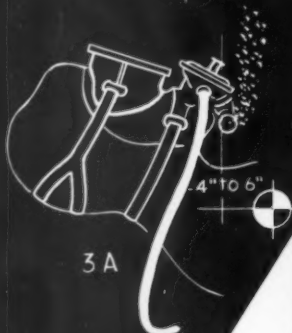
WATERLUNG



1A



2A



3A



Captain Walter B. Miller
... Director of Range Operations, U.S. Naval Missile Range Center, Point Mugu, California, has now selected the WATERLUNG for his personal use.

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This scientific comparison test is proof positive ... why SPORTSWAYS WATERLUNG is the easiest breathing demand regulator ever made!!!

In all demand regulators an initial effort is required to actuate the demand valve. To this must be added the height of a column of water (indicated in inches in each diagram) which must be added to the initial effort.

The effort required for normal human breathing on the earth's surface is 0".

Each diagram shows in inches (plus or minus) the height of the water column from the center of the human lung to the demand regulator.

Diagrams 1A, 2A, 3A show location of the WATERLUNG Demand Regulator at the mouth ... in relation to the center of the human lung in all diving positions ... as compared to the location of the old two hose type regulator ... as shown in diagrams 1B, 2B, 3B.

- **IN THE NORMAL DIVING POSITION:** The Waterlung Dia. 2A. requires only an additional effort of 0" to 1" as compared with the old two hose regulator Dia. 2B. which requires an additional effort of 7" to 12" in the normal diving position.

- **SWIMMING ON THE BACK:** In Dia. 3A. the location of the WATERLUNG Demand Regulator still permits comfortable breathing ... 4" to 6". Compare this with the old type two hose regulators (Dia. 3B.) where the location of the demand regulator causes the air to flow forcefully rather than on demand ... with an overpressure of 7" to 12". The result is an excessive loss of air supply and extreme discomfort to the diver.

The results of these comparison tests and a host of other incomparable features are the reasons why thousands of the world's foremost S.C.U.B.A. divers and diving authorities agree ... the WATERLUNG has the scientific design • workmanship • materials • performance ... that herald a new era ... makes the future of S.C.U.B.A. diving a reality today!

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1B



2B



3B



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- Cat. No. 1401 Sea-View Pressure Gauge retail 24.95
(can be purchased separately and installed when desired)

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35c.



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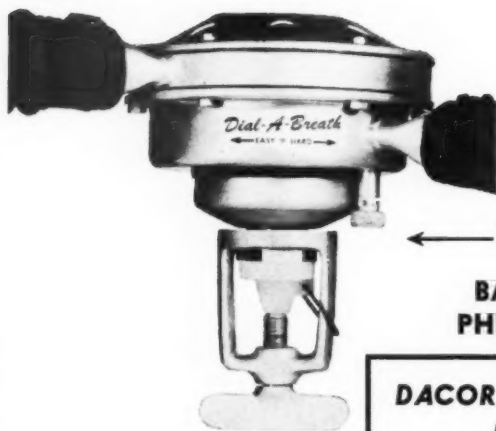


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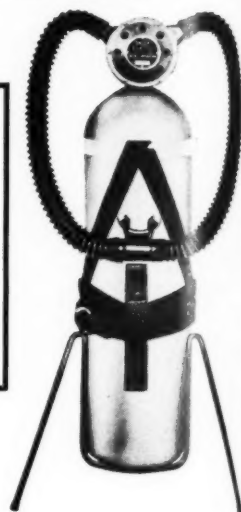
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two stage regulator

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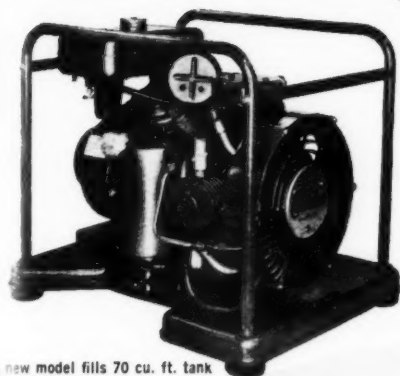
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PLUS 3 Honorable Mention Awards.

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FOLLOW THESE RULES

1. In 300 words or less, tell us what your club or skin diving buddy has done to deserve the award of "Skin Diving Club of the Year" or "Skin Diving Buddy of the Year."
2. Send as many entries as you wish. Write your entry on official entry blank along with your name and address. All entries must be signed by a skin diving equipment dealer. Send it to: The Cornelius Company, "Grand Award" Contest, 550 39th Avenue N.E., Minneapolis 21, Minnesota
3. Prizes consist of Cornelius compressors and honorable mention awards as listed elsewhere in this advertisement.
4. All entries will be judged by the staff of SKIN DIVER magazine on the basis of the merit of the nominee's action or contribution to skin diving. Clarity, sincerity and aptness of thought of the nomination will assist the judges in making the selection. Judges' decisions are final. In case of duplication, earliest entry received will be selected. Contest is subject to governmental regulations and is void in any state where prohibited, restricted or license required. All entries become the property of The Cornelius Company.
5. All entries must be received by, on or before midnight August 1, 1959. Employees of The Cornelius Company, SKIN DIVER magazine or their advertising agencies and members of their immediate families are not eligible.
6. Contest limited to residents of United States and territorial possessions of U.S.A. Nominations must be for activities which occurred since January 1, 1958.
7. All winners will be notified by mail.

The Cornelius Company wants to reward outstanding SKIN DIVING CLUBS and INDIVIDUALS for their activities! Here's an opportunity to win the world's finest high pressure air compressor for your club or your buddy. All you have to do is tell us in 300 words or less what your club or your buddy has done to earn them the title of "Skin Diving Club of the Year" or "Skin Diving Buddy of the Year." It can be a safety program, legislative effort, conservation activity or any outstanding individual or club contribution to further the sport of skin diving.

See your local sporting goods store or skin diving equipment dealer for entry blanks. If your dealer cannot supply, write direct to The Cornelius Company but hurry — contest closes August 1, 1959.

THE *Cornelius* COMPANY / "GRAND AWARD" Contest
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Vol. VIII — No. 6 — June 1959

SKIN DIVER MAGAZINE

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Devoted to the Underwater World
Telephone NEvada 6-0581

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COVER

This month's cover does much to exemplify all of the freedom, fun and exhilaration of skin diving. We see the undersea adventurer suspended in the void of water, gravity practically nonexistent, poised for the correct turn of the fish during the stalk. Photo taken at Eagle Reef, Catalina Island, California, by Matt Toggweiler.

editorial

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editorial

As we approach the sixteenth anniversary of the invention of self-contained breathing apparatus, the tool that enables us to unlock the door to the underwater world, I feel it is time that we did a little soul searching, engaged in a little introspection as to what it is about this sport that can so completely enthrall its devotees.

Perhaps with the single exception of flying, there has never been a sport which so captivates its participants as does the sport of skin diving. As it is with flying, the primary sensation is one of freedom, which is one of the key words in the explanation of this phenomenon.

The diver, upon leaving the surface world, leaves behind him all the surface tensions and frustrations, for the underwater world is a jealous mistress and insists upon complete concentration. The diver upon submerging leaves the land of man, and becomes instead a part of his new environment, virtually a manfish.

It is, of course, impossible to describe the actual sensation of living underwater, for to comprehend a verbal description the listener must be able to compare what he hears with something in his past experience. This, of course, is impossible, since this is entirely a new human experience. However, there are certain key words that can give some small impression of the sensations of diving, and perhaps a clue to the motivations of the divers. Perhaps, if I were asked to sum up these key impressions I would say it this way . . . Solitude . . . Silence . . . Beauty . . . Mystery . . . these, I think, are the key words, each with its own connotation. To elaborate on these words is an impossibility, for each has a different meaning for each individual, and each individual reacts differently to them when he experiences them underwater.

The sensation of Adventure was omitted deliberately, for some of the connotations of the word are definitely out of context. The element of danger is present, but is not a desired effect, and is reduced as far as possible. For the most part, diving is an emotional experience, as well as a physical one, and for this reason has an almost soporific effect upon the diver.

It is this deep emotional effect that is present in diving as well as flying that goes a long way to explain the "hold" that the sport has upon its followers.

—By Guest Editor Ray Hoglund

Page 15 of this issue features a short boxed letter to Mr. Nixon Griffis from President Eisenhower's Youth Fitness Committee. This committee is composed of Cabinet Members. Do yourself and your sport an honor by doing your part to send a United States team to the World Championship Underwater Spearfishing event in Malta on August 16 of this year. Eighteen countries will have their top underwater spearfishing teams at this contest and the United States must be one of them. U.S. Team Coach Jim Christiansen is right now making the final selection of spearfishermen to be members of the team. This will be a representative group of divers from all over the nation . . . the top competitors of 1958 and 1959 are being considered . . . your region will be represented by at least one man. All of the accommodations in Malta are being taken care of by the World Federation and the sponsors; transportation is the big financial hump. Page 15 also gives an address where you may send the money from your pocket and club.

Important! Cornelius contest on Page 7 . . . Roster of Diving Clubs, send us a post card with your club name and address . . . Miss International Beach Temptress (see Driftwood) . . . Underwater Society of America, P.O. Box 724, Station A, Champaign, Illinois.

features

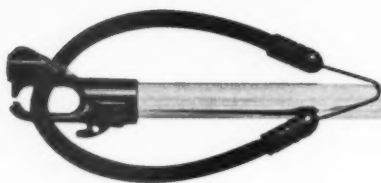
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Triumphant John Riffe looks back at the pounding crashing surf line that he has just defeated. Part of the grimace could be for the yellowtail that he will get on his return trip. On the beach north of Malibu, California.





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New York 11

Chicago 11

Los Angeles 11

Letters

... I have been a photography bug for some time now. This will be my first year in underwater photography. I have an Argus C-3 camera and Seahawk Mark II camera case & flash unit. If possible, I would like to exchange information with other photo bugs in the New England area who have taken underwater pictures or are in the process of taking such pictures off our New England coast line. Most of my work on land has been with color and, because of this, I am going to attempt to use color film underwater almost exclusively.

Most of the books written on underwater photography give speed, f stops, etc., as pertaining to water located in the gulf streams or off Florida and California. Our New England waters are quite a bit different. I would appreciate it if readers having any information or suggestions on the subject would contact me.

Richard S. Ahern
P.O. Box 1
Newton Junction, NH

... I incurred an air embolism last July and have been hospitalized in a V.A. paraplegic center since, but am going home now with "maximum hospital benefits." I have regained much of the use of hands and arms but very little below the waist. None of the Paraplegic Centers have ever had this type injury and they don't know very well how to cope with it. If you have any information on another such case where permanent spinal cord damage resulted I would very much like to know about it, and possibly get their names and addresses so that we could compare recovery data.

Reynolds Moody
P.O. Box 352
Kendall, Florida

... We have just started a skin and scuba diving club in this area for Military personnel and their dependents. Our temporary name is Aqua-Docs. Potential members are invited to write:

John A. Bailey, HN
U. S. Naval Hospital Staff
Key West, Florida

... I have been reading quite a bit about skin diving clubs trying to raise money for compressors, decompression chambers, banners and what have you. I think I have hit on a solution. My father owns Michigan Scientific Co. He is desperately in need of stag horn and brain coral, crabs, starfish, sea anemone, jellyfish, sea urchins, etc. If the various clubs will write me, telling us what they can supply, I will be glad to tell them how to prepare, ship, and the prices paid.

David Van Ellis
3200 Dwight
Ann Arbor, Michigan

... in the April "Log of the Chiriqui" mention was made of Easter Island roads that lead into the sea. Thor Hyerdahl in his book "Aku-Aku" spends considerable time on these roads. Thor had a lung diver with his expedition and found that the roads end just below the surface. Hyerdahl believes

the roads were used to bring the giant statues to the huge barges, which were made of reeds and used to float the statues to other parts of the island.

Ed Hertfelder
Philadelphia, Pa.

... The New Castle Dolphins skin diving club was formed this past winter with "safety plus" as our motto. We would like to correspond with other clubs or divers about activities and experiences. All our members enjoy SDM from cover to cover.

Frank Terpelowski
2451 Penna. Ave.
New Castle, Pa.

... I noticed in your March issue that reference was made to the fact that in England there was legislation covering the color of pressure cylinders. Here is the situation in Australia. At the present time no overall national coding exists, however the various compression authorities do carry out codings that more or less agree. Commonwealth industrial gases carry one coding system throughout Australia while a large number of smaller firms and air suppliers tend to follow the English BSS Code which is for air, dark grey cylinder body with black and white segmentation on the shoulder. Dark grey is normally adopted for air though in a majority of the cases there is a color band of some description to separate air from nitrogen which also uses a dark grey tank. I believe that at the present time the Standards Authority is seeking uniformity on this matter and as soon as I am notified about it I will pass the information on to you and SDM readers. I have an air refill station here and will be happy to service anyone passing through.

T. G. Davies
West Launceston
Tasmania

... With summer coming on all divers are heading to the water at full speed... all, that is, except for three poor troopers in Budigan, Germany. We were divers from Florida, New York and Chicago and all have the bug this year. Now, however, we are in danger of the scurviest of all diseases. The dry rot. We know of no lakes open to us or of any German skin divers in the Frankfurt area who could help us out. There must be some clubs and individuals over here but we have no way of contacting them.

Pvt. Robert Hill US55644378
B Trp 3d Recn Sqdn 12 Cav.
3d Armored Div.
APO 39, NY, NY

... Calling all skin divers. We are organizing a new club and are looking for members. Are you interested in belonging?

The club will be organized for you. It will help you meet other divers, talk over your problems, go on outings, etc. Also, being a club member you get a discount on your air and equipment.

If you are interested, send your name, address, and phone number to:

Ray Haberman,
660 N. Eagle
Naperville, Illinois

... I'm 19 years old and have been diving for about five years. I own a dry suit and the basic skin diving equipment but I don't own a scuba as yet.

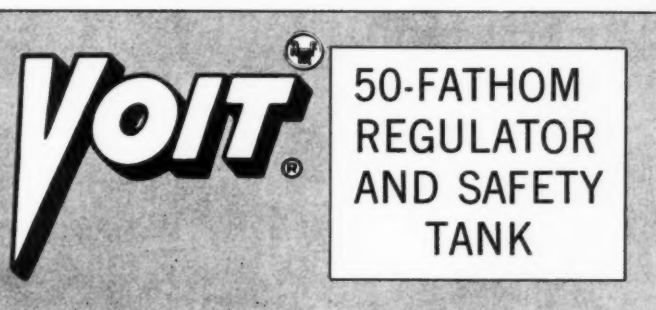
If there are any divers in my area who are interested in doing some diving during the summer will they please contact me at the address below.

Jim Frehner
3130 Priscilla Ave.
Highland Park, Illinois



NEW! 50-FATHOM REGULATOR

Tested And Proven To
Be The Safest, Simplest
Easiest-Breathing
Regulator Ever Built!



Beauty, safety and simplicity of operation
combine to make Voit's new Lung the most
exciting advance in diving equipment in years!

The new Voit Lung has proven to be the easiest-
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Test it yourself... soon!

Compensated Regulator.
Easiest breathing at any
depth. Minimum working
parts, for safety and ease
of maintenance.

Brass box, blued. All parts
free of electrolytic action.

Chrome clips — easy
maintenance and beauty.

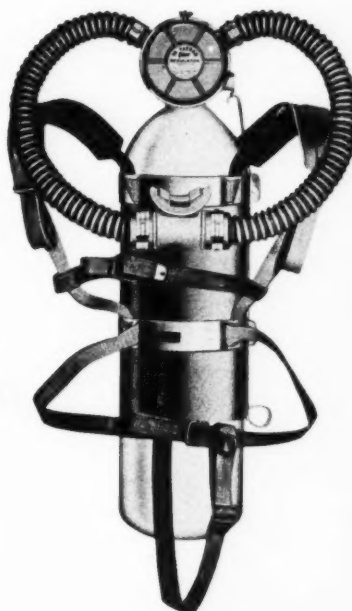
Non-return valves, in pearl
gray hoses.

Smaller, more comfortable
mouthpiece (but no decrease
in air flow passages).

Improved, comfortable harness
nylon stitched (no rivets to
pull out).

Safety Reserve (pre-set,
300 psi).

Safety Tank — ICC approved,
drawn steel, galvanized, then
double spray painted blue
with white ends — colorful,
visible, safe.



New York 11

Chicago 11

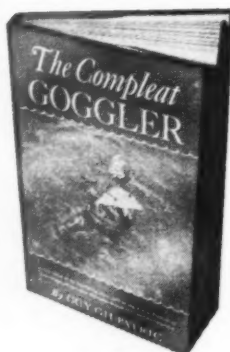
Los Angeles 11

Voit 50-FATHOM REGULATOR AND SAFETY TANK

UNNECESSARY EULOGY

By RONNIE GANN

Here is the first book ever written about "Goggle Fishing," now known as Skin Diving, the classic in the field. Mr. Gilpatric tells exactly how it is done and gives full details, drawings and photographs of the spears and goggles. A new section by James Dugan brings it up at date on the latest equipment.



Illustrated with dozens of unique photographs, it is not only a complete treatise on the current sport craze, but an intensely interesting and amusing book besides. Even if you can't swim a stroke, even if you live in the middle of a desert and hate water like a cat—dive into *The Compleat Goggler* and you'll come up with a thrill and a laugh!

Order Book Number 27 in
the Underwater Book Shelf

WITH the inevitable turning of the earth, the warm weather makes its longed-for appearance on the East Coast. But just as predictable as the changing seasons, are the enthusiastic, sincere, neophyte would-be (or hopin' to be) "divers," who rush to the beaches, lakes, ol' swimmin' holes and what have you, with snorkel in one hand, mask in the other, and without a doubt, an unspoken prayer on their lips.

That group of individuals who, for the first time, or second or even the third, will don our beloved and respected basic implements of skin diving, and announce that they are "seasoned divers." (What they don't explain is that this is their *first* season!). I'll commit myself one step further by implying that it's more probable than not, some of these individuals will be trying their hand at "breathing from a tank of oxygen," as I've been so unfortunate as to have heard many times.

The rough part . . . the part that's hardest to take, is the indisputable fact that a few of these uninstructed, unsuspecting, needlessly ignorant people will be . . . yes, *will be*, a statistic in next year's World Almanac.

Primarily, the kids are what we've to worry about. Adults, thank goodness, have brains enough to get proper instruction in the use and care of diving gear. The younguns, say, aged 15 and under, should be *required* to undergo instruction in the basic principles governing safety and diving nomenclature *before* ever entering the water with a piece of gear! Now hold on! I'm certainly not advocating state regulation on divers. We here in Hartford just got over a bout with the authorities on this subject.

I am, however, advocating *strict* parental guidance, the continuance of diving clubs stressing the need for safety, more clubs, more and better instruction facilities, and more parents cracking the kids across the fanny for not adhering to a set of predetermined commonsense safety measures.

So, it's easy to say and not to do? Well, this time you're dead wrong. For instance, those of you in a small community who know your diving and diving rules, go to the police, YMCA or Community Centers and offer your services as an instructor. CD has a place for you and needs good divers . . . and even other divers need good divers! None of these people will turn you down. Get your name in the local paper a few times . . . in other words, pro-

mote interest and you'll inadvertently promote safety.

The following questions aren't meant for you "granddaddies of the sea," but it is recommended that you diving moms, pops, boy friends, hubbies and the like direct them where they'll do the most good. Instructors—read 'em to the new class. I will admit, a couple *are* tricky, but only so to the newcomers, and before those kids . . . or let's call them neophytes, enter the water this summer with diving gear on them, these and many more basic and advanced answers should be known.

All instructors (I hope) can discuss at length the answers to these questions, but for anyone who wishes a full explanation to any or all of the questions, drop a line to me at 177 Andover Street, Hartford 12, Connecticut and I'll rush back the best answer I can muster . . . tax and postage free. Knowing there may be one less Unnecessary Eulogy to be said is well worth the time a letter might take. I hereby withdraw from my soapbox.

Answer True or False

1. Wearing mask, fins and snorkel, it's o.k. to dive headfirst into water that you know to be safe.
2. A speargun should always be cocked before entering the water.
3. The oxygen in a scuba unit should be the purest obtainable.
4. Store owners who sell diving gear should not be expected to explain its use.
5. As long as a scuba unit is fully guaranteed to function properly, it isn't necessary to know what makes it "tick."
6. If a regulator becomes fouled, the most practical thing to do after taking it carefully apart, is to clean each item thoroughly with carbon tetrachloride (CCL₄).
7. A rescue device (Res-Que-Pak, Mae West (etc.) is not truly a necessary part of diving gear.
8. A scuba unit (regulator and tank) should be inspected every year.
9. Simple gear, such as snorkel and mask, need not be checked.
10. Rubbing saliva in a mask, then rinsing will prevent fogging and will enable one to see better underwater.
11. Using compressed air in a Scuba unit is unsafe.
12. If a mask becomes filled with water, surface immediately.

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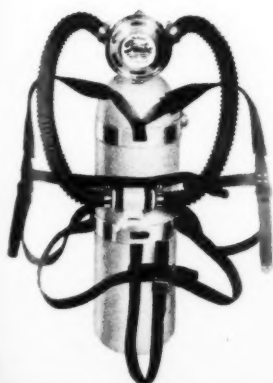
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YELLOW								
RED								
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	WAIST	WEIGHT	HEIGHT
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SMALL	30-34	135-160	5'5"-5'9"
MEDIUM	32-36	155-180	5'7"-6'0"
LARGE	34-38	175-210	5'10"-6'1"
EXTRA LARGE	38-42	210-240	6'0"-6'4"

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SEA-TONE

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Results of SPA-AAU Spearfishing Eliminations

The first elimination competitive spearfishing meet of the SPA-AAU year was held May 10 at Salt Creek, south of Laguna Beach, California. The weather was clear and sunny, water temperature was about 62° with a moderate to heavy surf running. A total of 23 teams participated with the top twelve listed below going on to the Association Finals at Divers Cove in Laguna Beach on May 24.

Trophies for the Eliminations were donated by Penguin, Inc., Ski N' Dive and Mel's Aqua Shop.

First place, Long Beach Neptunes; Second place, Sea Bears; Third place, Muirmen; and the other teams in the top twelve were Submariners, Kelp Tangles, Laguna Free Divers, Dolphins, Long Beach Douglas Tritons, Northrop Kelp Worms, Kelpotomaniacs, Sea Angels and the Pescadores.

Largest individual aggregate was taken by Long Beach Neptune Terry Lentz and the largest fish was brought in by Dolphin Dan Danison.

U. S. TEAM TO WORLD CHAMPIONSHIP

PRESIDENT'S COUNCIL ON YOUTH FITNESS
Washington 25, D. C.

May 6, 1959

Mr. Nixon Griffis
Brentano's
586 Fifth Avenue
New York 36, New York

Dear Mr. Griffis:

As Executive Director of the President's Council on Youth Fitness, I am moved to commend heartily the efforts of the AAU to send an American team to the International Spearfishing Contest in Malta this year.

The admirable performance of the latest American team to participate in this competition in 1957 in Yugoslavia was not only reassuring but indicated the desirability of focusing attention on your continuing representation in these contests.

The Council knows no major or minor sports but recognizes the worth of all athletic participation under appropriate circumstances. Additions to the sports menus are always welcomed.

Diving is a decidedly rewarding activity which pays a variety of dividends as work and as recreation. It pays off in many ways as a hobby.

Congratulations to the AAU on planning to be among the more than twenty nations contesting in the Internationals.

Very cordially yours,
/s/ Shane MacCarthy
Executive Director

NATIONAL YOUTH FITNESS WEEK-May 3-9

(Ed. note: Mr. Nixon Griffis has now accepted the appointment of Vice Chairman of Finance for the Championship Committee. Any aid (MONEY) that you may be able to offer should be directed to

Mr. Nixon Griffis
Vice Chairman of Finance
World Championship Committee
AAU Competitive Skin Diving
c/o Brentano's 586 Fifth Avenue,
New York 36, N.Y.

—it's tax deductible.)

SKIN DIVER—June 1959

Announcements

Expedition to the Sunken City of Epidauros

An Archaeological Expedition to Caviat (sometimes, known as Ragusa Vecchia) approximately seven miles southeast of Dubrovnik (Yugoslavia) on the Adriatic coast is being organized to take place between July and October 1959, for the purpose of carrying out an underwater survey of the ancient sunken city of Epidauros now lying in approximately 40/60 feet of water in St. Ivan's Bay within two miles of Cavtat township.

It is proposed to carry out a survey of the underwater area, photographing and concentrating on all outstanding features of interest. On subsequent identification of these features, a minute examination will be carried out under the supervision and cooperation of the Institute for the Protection of Historical Monuments in Dalmatia. A documentary film for television showing will be taken by Mr. Ley Kenyon, well-known author and authority on underwater activity.

Seeing that most of the city of Epidauros disappeared beneath the sea in a sudden subsidence around 250 A.D., the inhabitants having only enough time to save their lives, it is logical to assume that a systematic search of the area should reveal many interesting objects, various works of art, statuary, pottery, etc., and may help to throw more light on the day-to-day life of the citizens in this early colony.

Fishing License Statistics

According to statistics gathered by the Fish and Wildlife Service of the Department of the Interior there were 20,177,605 fishing licenses issued during the period of July 1, 1957 and June 30, 1958 throughout the nation. States leading the field with the largest number of permits issued were: Minnesota, California, Wisconsin, Michigan, Ohio, New York, Texas and Illinois.

Bermuda Reef Population

Results of an interesting study of the summer standing crop of fish on a shallow isolated Bermuda coral reef are described by Dr. John E. Bardach, University of Michigan's Fisheries Department. He found a population of fishes equivalent to about 420 pounds per acre on the 2½-acre reef he studied.

Comparisons between the fish population of this reef and more extended reef areas led to the conclusion that carnivorous fishes predominate on isolated reefs, while herbivores are more abundant on large browsing areas. On a large reef area the latter outweighed the carnivores about nine to one.

The total standing crop is very much higher on the reef area than on the surrounding sandy areas. This is related to the great sculpturing of the reef which extends the surface area. An approximate weight ratio of 5 to 1 for forage to carnivorous species is evident from the figures presented. This is not unlike the condition of balance recognized in farm ponds of the southern United States.—Sport Fishing Institute.

Junior Frogman Workshop Held By Los Angeles County

On May 23 at the Downey (Calif.) High School the Los Angeles County Certified Skin and Scuba Instructors held a workshop program to teach basic skin diving to swimming pool managers in Southern California. For the first time in the history of Recreation in the Los Angeles area, the City and County Departments of Recreation combined with all the local chapters of the American Red Cross and the outlying cities in a united effort to bring to the youth of America what is considered the outstanding aquatics program in existence for children in the 10-14 age bracket.

The program started at 9 a.m. in the pool and ended at 3 p.m. with the awarding of diplomas. The certified instructors who worked in this workshop taught basic skin diving to a selected group of pool managers. The managers are now prepared to teach the Junior Frogman program in their own pools.

Spearfishing Ban in Florida Upper Keys

The rigid ban on underwater spearfishing in the Upper Keys of Florida will soon be modified if enough pressure can be brought to bear on the final holdouts who believe that the underwater sportsman will completely deplete the Florida reefs of all fish. Many of these Florida residents who oppose the spearfisherman and who were able to pass the highly discriminatory bill to ban spearfishing in the Upper Keys are charter boat captains and motel owners of the area. H. V. "Pappy" Flood, President of the Southeast Council of Skin Diving Clubs, writes on the subject . . .

" . . . I don't need to tell you how much skin diving nationwide needs to whip this total Upper Keys ban. This ban could be, and probably has been, the pattern for other discriminatory legislation around the country. At present what we need most are letters from skin divers and skin diving organizations from all over the country to these people in the Upper Keys. They should be made aware of the facts, that skin divers are not just a bunch of kids or poor white trash. Rather, that many are people of means who do spend money in the pursuit of their hobby, which they do only in pleasant surroundings. And that they have shunned the Keys because of the spearfishing ban.

"The people to write to are: The Upper Keys Chamber of Commerce, Tavernier, Florida, and Art McKee, Plantation Key, Florida.

"We here feel that now is the time to push this thing over. There is a definite swing by many of the Keys people to modify this ban."

All right, send your letters . . . write to both addresses. Tell them (for the record) how many days you had planned to spend in the Keys, how many in your party, where you are coming from, what facilities you will need . . . fill them in with your vacation plans, etc. Many of the business people of this area depend on tourist trade. If you go there you will be a diver and a tourist.

West Coast Spearfishing Championship June 14, 1959—

Elaborate plans have been made for the coming West Coast Underwater Spearfishing Championship to be held for the first time at Santa Catalina Island. Once all of the arrangements were made for the competing teams . . . boats, hotel, travel to the island, etc., the organizing committee discovered that they were going to hold the biggest competition in the history of the West Coast, but that there were no provisions for families and spectators. Avalon Travel Service came up with an attractive plan. Details are: hotel and travel, package rate available to all, \$17 for adults and \$14 for children. This package includes round-trip boat transportation, three meals and Saturday night's lodging. This package is for couples or groups of three or more. Competitors and officials are entitled to this package without charge. However, their requests must be submitted with their family requests or in groups of three or more.

Minimum hotel rates will be extended to anyone desiring to arrive earlier in the week. Guests will be billed by the hotel for these extra charges.

Transportation will be from: Pierpoint Landing in Long Beach, Catalina Terminal in Wilmington, and Newport Beach.

St. Catherine Hotel will be the headquarters. Most of the competitors will be housed at the St. Catherine. Other hotels are available. Hotel prices for those not desiring the package program run from \$7.50 to \$13.00 per night.

All housing and transportation will be handled by Avalon Travel Service, P.O. Box 551, Avalon, California. Telephone Avalon 745.

Santa Barbara Semana Nautica Set for June 28

The eighth annual Santa Barbara skin diving contest will be held this year on June 28 at the Carpinteria Reef, one half mile north of Linden Avenue. Time is 10:30 a.m. This is a contest of two-man teams (either sex or mixed) to bring in, within the one hour time limit (a) the greatest number of starfish or (b) the largest single starfish. The start and finish will be from the beach. Plenty of the starfish clan may be found in ten to twenty feet of water within a quarter mile of shore. Each team must have a floatation device, no lungs are allowed and contestants cannot receive help from the spectators.

Entry is open to all experienced skin divers, with or without club affiliation. Team members should enter together, naming their partner. Entry fee is 50¢ per person which is payable up to ten minutes before the start of the contest. Blanks for entry and further information may be obtained from Lyn Dearborn, care of the "Souvenir", Breakwater, Santa Barbara, California.

Bludworth Marine Appoints New Dealers

Bludworth Marine, a Division of Kearfott Company, Inc., a subsidiary of General Precision Equipment Corp. has announced the appointment of three new dealers for their products. Posner Marine Radio Equipment of Boston, Northwest Instrument Co. of Seattle, and Cluett & Co. of Greenwich, Conn. will handle sales and service of the Bludworth line of radiotelephones, direction finders, depth sounders, the underwater Power Diver, Underwater Metal Locator and the underwater television camera.

Tennessee Catfish Spearing

A recent news release from the Tennessee Game and Fish Commission states that five catfish daily may now be taken by underwater spearfishing. Reelfoot Lake and all man-made water impoundments in the state are open to underwater spearfishing, year-round, between sunup and sundown. In addition to the new five-catfish limit, rough fish may be taken in any quantity. No other fish may be taken by this method, and fish of any kind taken by spearfishing may not be sold.—Sport Fishing Institute.

West Indies Championships

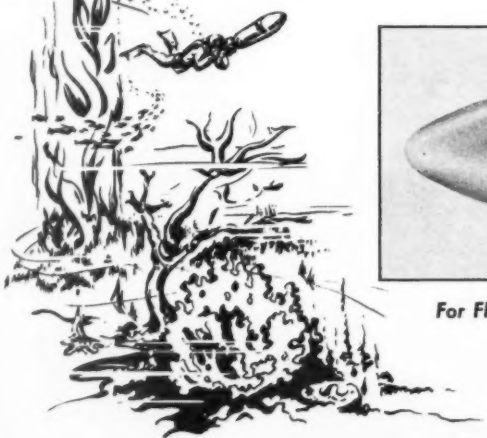
The A.A.U. West Indies Regional Championships for Skin Diving will be held on June 6, 1959, beginning at 8:00 a.m. at Ponce, Puerto Rico. The diving will be held at Tamarindo Reefs near Guanico, Puerto Rico. For accommodations and other practical reasons, diving headquarters will be in Ponce.

Any teams interested, please contact A.A.U. Regional Chairman R. D. (Bob) Robinson, P. O. Box 9787, Jackson, Mississippi, U.S.A. Telephone EM 6-6485.

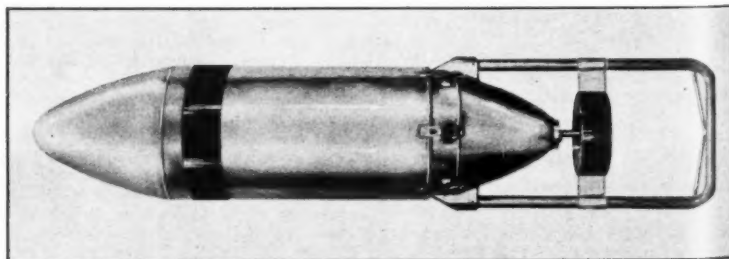
Gulf Coast Eliminations

The Gulf Coast district eliminations will be held at Grand Isle, Louisiana on June 7. A.A.U. registered clubs from Arkansas, Texas and Louisiana have been invited to compete. The three-man team winning the eliminations will be sent to the National A.A.U. Competitive Skin Diving meet on Grand Bahama Island in July. Additional information can be obtained from Dick Alba, 1518 Ocean Dr., Metairie, Louisiana.

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BOB LOGAN, Diving Manager—Instructor. Scuba Consultant, Ohio State University. Former Navy UDT member.

ART STANFIELD, Assistant Diving Manager—Instructor. Former Navy UDT member. Instructor and Consultant to NATIONALIST CHINESE GOVT. on underwater training.

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1/8" KIT \$22.95 • 3/16" KIT \$32.50



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**LOWEST PRICED PROFESSIONAL SCUBA
EQUIPMENT ON THE MARKET...**

PHOTOS BY BRUCE PARKER
(Bahamas News Bureau)

FILM STAR Gary Cooper has found a vacation pastime that's a world apart from his movie adventures, but packs as many thrills and excitement as his rowdiest Western!

Still a frontiersman, Cooper now looks for new horizons beneath the sparkling blue waters of the Bahamas. Following a publicity tour for his latest film "The Hanging Tree," the lanky star and his beautiful wife, Rocky, flew to Nassau with friends Mr. and Mrs. Richard Harris of Rye, N.Y.

Casting eager glances at the turquoise sea stretching out beyond glistening beaches, the party managed a sightseeing tour to New Lyford Cay development and a shopping trip through native straw markets before contacting skin diving professional Bruce Parker, at the British Colonial Hotel. Aboard Parker's converted shrimp boat "Satellite," they cruised in and out of cays off the coast of Nassau, and plunged into inviting spots, shimmering with brilliant multi-colored tropical fish.

Rocky turned out to be as expert a diver and swimmer as her husband, who handles a lung with much the same ease that he displays with a movie horse. Among inquisitive marine life, the Coopers explored eerie and beautiful coral rock formations and peered back at the curious fish.

Both Coopers are very good divers. They are careful, enthusiastic, helpful and a lot of fun, according to Parker. Most of their diving time was spent in the same area in which the movie "20,000 Leagues Under the Sea" was made and in depths from 15 to 35 feet. Gary and Rocky get a big kick out of observing the beautiful underwater panorama; for two days they didn't get a spear wet.

To the cowboy's delight, Gary has a new film coming up which gives him a chance to dive in front of the camera. The last two reels of "The Wreck of the Mary Deare," an adventure story from the book by Hammond Innes, call for the Academy Award-winner to be underwater, investigating a shipwreck.

Following the making of "Mary Deare," Cooper plans more diving in the Bahamas, and will bring his 21-year-old daughter, Maria, along for the experience. She's another expert diver in the Cooper family.



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Black — Yellow — Green

1/4" nitrogen filled, closed cellular neoprene for maximum warmth

3/16" neoprene cuffs, collar, hood and boots for extra stretch and comfort

Navy Waterproof Zippers available in 20" and 8" lengths for extra ease in dressing. Front zipper goes only to collar to insure snug, comfortable fit at neck. You can turn your head in a Husky Zippered Suit.

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Zippers 20", \$11.00 ea. — 8", \$7.50 ea.



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For added insulation, warmth, support and good appearance we recommend our swim trunk liner. It's light, strong and completely opaque. Wear it under any trunks. There's nothing else like it. Machine made — It's always uniform, always perfect fitting. Has rolled edge for strength. — Colors: Dark Blue or White. Sizes: Small, Medium, Large.

NOTE: Perfect, too, as a liner for women's bathing suits.

Better Fitting • Warmer • Fast Drying • Stronger

Skin divers everywhere asked us to design a swim suit like this. It's light and strong enough for skin-diving. Modest and attractive for ordinary beach wear. Warm, quick-drying, always comfortable. No other trunks like it, anywhere!

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- ✓ All seams reinforced. Waist and Crotch overlapped.
- ✓ Made of steam cured genuine latex rubber.
- ✓ Attractive color: Blue with White stripe.
- ✓ Dries immediately.
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Sizes: Extra small 28-30. Small 30-32. Medium 34-36. Medium-large 38-40.

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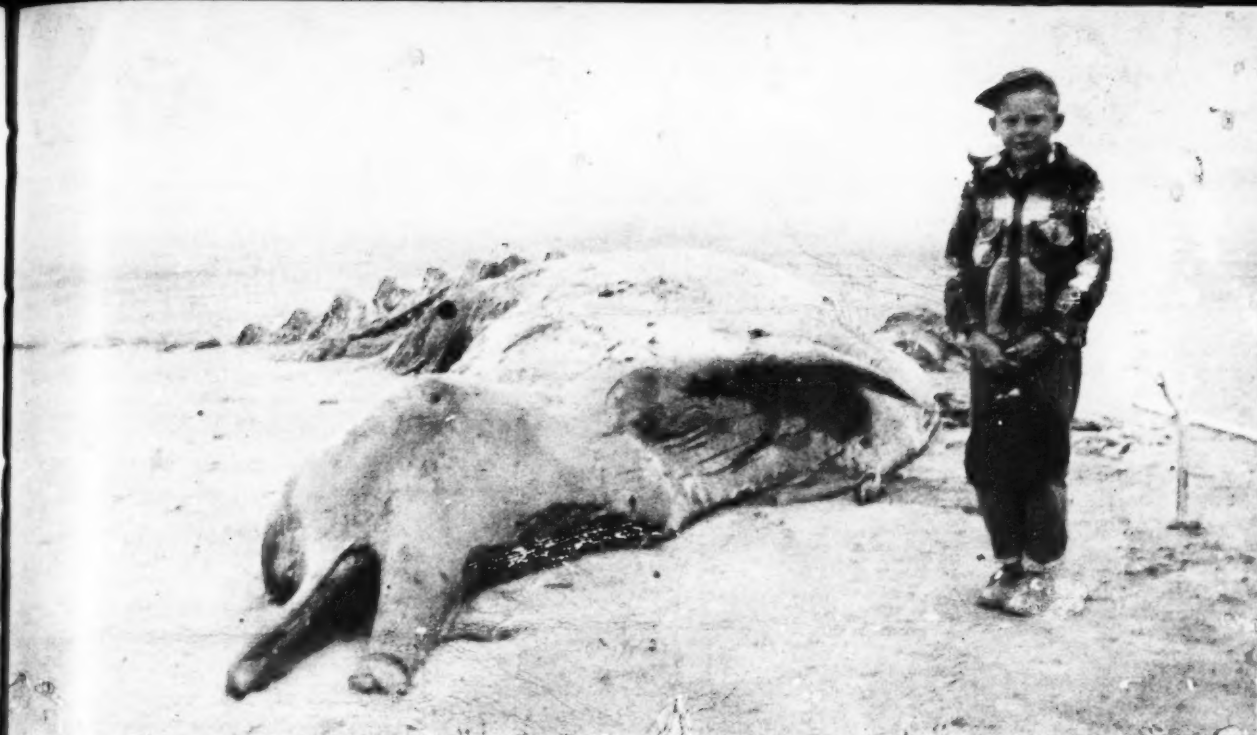
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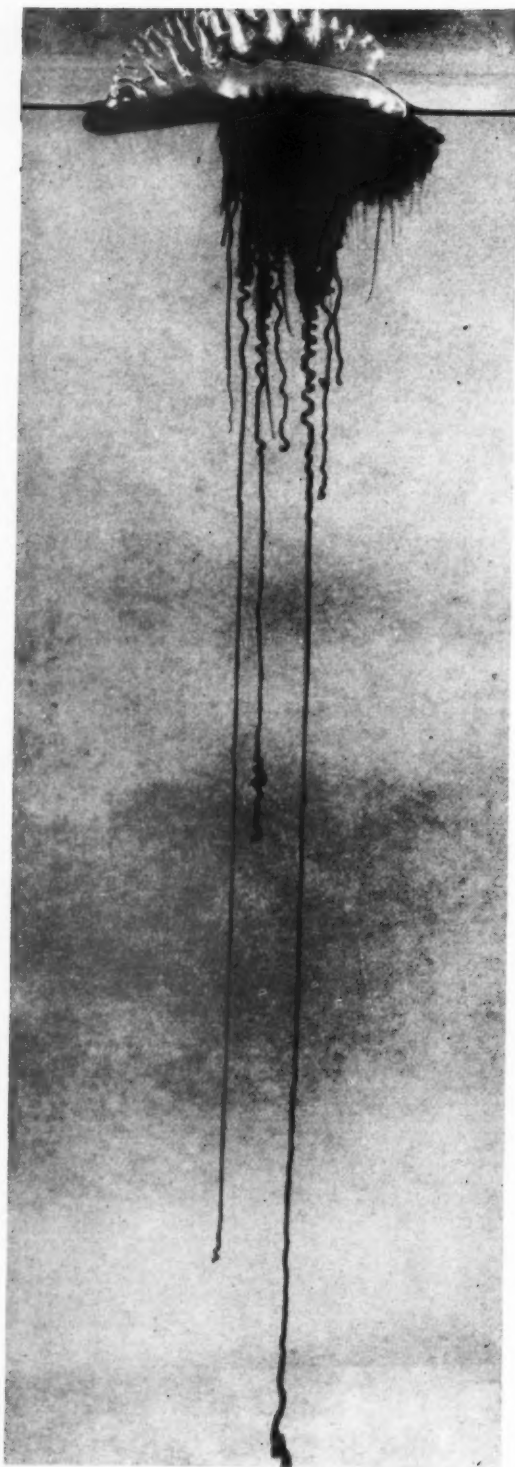
1959



WHAT IS IT? Photographed August 4, 1950 on the beach in the State of Washington by Mr. Burch, photos now belong to the Neptunes Raiders. Measurements: forty feet long, body about five feet in diameter, head three feet across. The paddle-like tail was covered with hide, no hair in evidence. Eyes small and appear as a small dot in the pictures. No teeth except for two tusks on lower bill or jaw, which has been cut off approximately six inches. No gills or breathers apparent in the picture, much flesh has sluffed off. There have been many guesstimations to the true identity of this creature . . . all concerned need an authoritative answer. Can you furnish the identity?

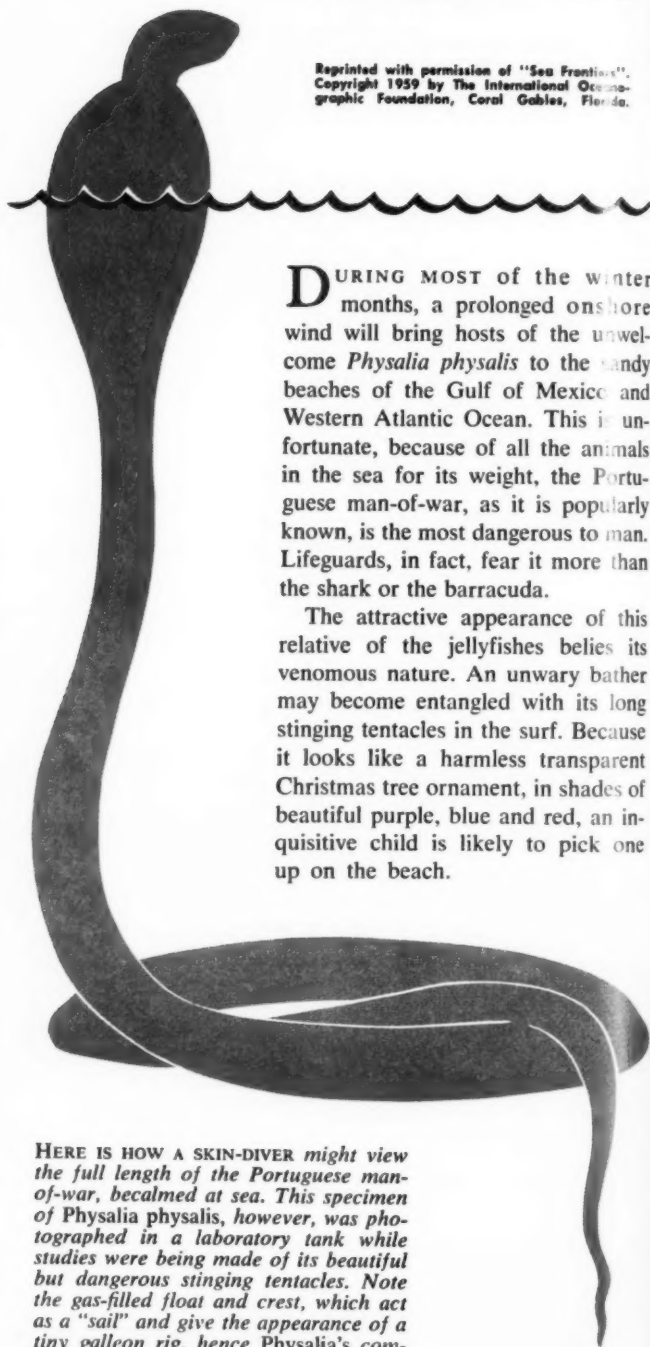


Cobra of the Sea



By CHARLES E. LANE

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Copyright 1959 by The International Oceanographic Foundation, Coral Gables, Florida.



DURING MOST of the winter months, a prolonged onshore wind will bring hosts of the unwelcome *Physalia physalis* to the sandy beaches of the Gulf of Mexico and Western Atlantic Ocean. This is unfortunate, because of all the animals in the sea for its weight, the Portuguese man-of-war, as it is popularly known, is the most dangerous to man. Lifeguards, in fact, fear it more than the shark or the barracuda.

The attractive appearance of this relative of the jellyfishes belies its venomous nature. An unwary bather may become entangled with its long stinging tentacles in the surf. Because it looks like a harmless transparent Christmas tree ornament, in shades of beautiful purple, blue and red, an inquisitive child is likely to pick one up on the beach.

HERE IS HOW A SKIN-DIVER might view the full length of the Portuguese man-of-war, becalmed at sea. This specimen of *Physalia physalis*, however, was photographed in a laboratory tank while studies were being made of its beautiful but dangerous stinging tentacles. Note the gas-filled float and crest, which act as a "sail" and give the appearance of a tiny galleon rig, hence *Physalia*'s common name. (Charles E. Lane)

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May Cause Collapse

Both bather and child may suffer painful consequences, which vary from momentary burning sensations, through intense incapacitating agony, to complete collapse and unconsciousness—depending upon the severity of the contact and on the sensitivity of the person.

Physalia is being actively studied at The Marine Laboratory of the University of Miami to discover more about the manner of stinging, and the nature and intensity of the poison. Why is science interested? Among other reasons, because any biologically active substance, even a violent poison, may have some potential medicinal use.

Beauty of the Beach

When it is cast up on the shore by the winds and currents, and subsequently dried by the sun, *Physalia* is the prettiest thing on the beach, a bluish transparent bubble which varies in size from barely visible to several inches in diameter. But usually it is entangled with bits of seaweed, sand and other debris which obscures the true nature of the entire animal.

Observed alive at sea, *Physalia* is seen to be a complex organism, consisting of many parts. Indeed, the "animal" is more complex even than

WARNING! Don't touch even small *Physalia*! Because they look like harmless Christmas tree ornaments, in beautiful shades of purple, blue and red, inquisitive persons often pick them up on the beach. But such persons may suffer painful consequences, which vary from momentary burning sensations through intense agony to complete collapse, depending upon the size of tentacles, the extent of bodily contact and the sensitivity of the person. (Charles E. Lane)



it appears to be, because a study of its development reveals that it is a colonial organism, with each of its component parts representing a distinct and individual animal.

Gas-Filled Float

Most prominent of the components of the *Physalia* colony is the gaily-colored float. This is a gas-filled membranous bubble which is generally longer than it is high or thick. The composition of the contained gas, incidentally, is slightly different from that of the atmosphere—being relatively richer in carbon monoxide and poorer in oxygen.

The float bears also a showy inflated crest, like the stabilizer on a lighter-than-air blimp. This "sail," and the general boat shape of the bubble, resemble those of a tiny sailing ship, hence the common name, Portuguese man-of-war.

Why "Portugal"?

The reference to Portugal is a puzzler when it is considered that *Physalia* originates in warm tropical waters, such as the Gulf of Mexico and the Caribbean Sea, although it is sometimes carried by the Gulf Stream as far north as England.

According to one explanation, *Physalia* was first sighted by English sailors moving southward with the Canaries Current, an offshoot of the Gulf Stream, near the coast of Portugal. As miniature fleets of *Physalia* glided along their blue crests and galleon-like appearance suggested to these first observers the name "Portuguese man-of-war," and thus it has been known (to non-scientists) since.

"Tack" Like a Sailboat?

To return to the float, this remarkable appendage can be inflated or deflated at the will of the animal. Some authorities believe that *Physalia* can actually sail a course other than straight before the wind—that it can, in fact, "tack," and so make good a course at a significant angle to that of the prevailing surface winds. Living man-of-war in the laboratory frequently roll the float under the water and bathe its entire surface. This prevents the float from drying, and may be important in gas secretion.

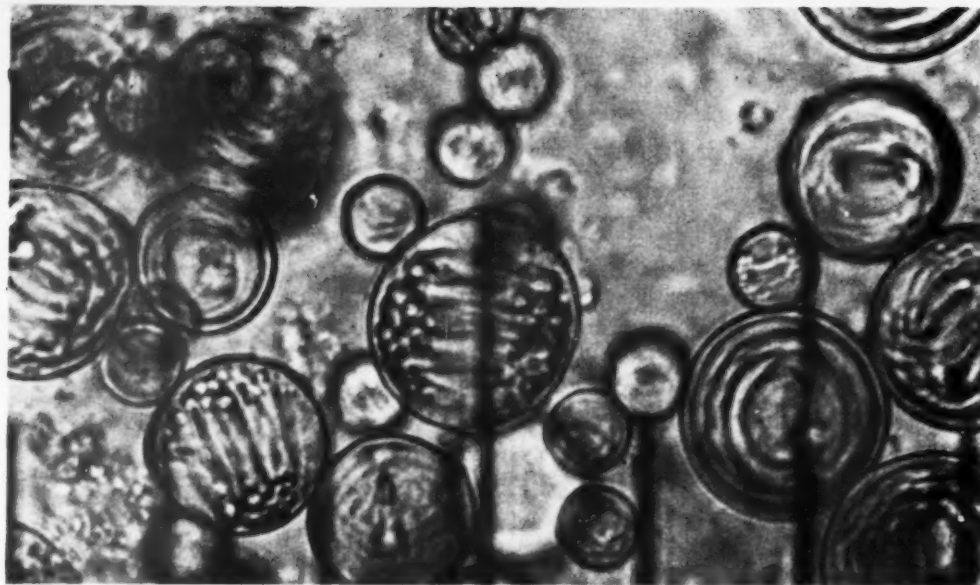
Hanging from the float, and trailing for considerable distance through the water, are many long tentacles. These tenuous, transparent threads resemble the mono-filament lines employed for the same purpose by human fishermen. They are, indeed, "fishing" tentacles, and, in an animal bearing a six-inch float, may exceed ten feet in length. Really large specimens have been reported with tentacles nearly forty feet long.

Bring Prey to Mouths of Colony

These tentacles are muscular, and can be contracted completely to bring entangled prey organisms into the many mouths of the colony. The mouths, in turn, lead into the digestive members of the colony—the gastrozooids. It has recently been shown that these are stimulated to activity by the presence of the substance glutathione in the injured prey organism. *Physalia* can be induced to

UNDER A MICROSCOPE the tentacles of the Portuguese man-of-war appear to be beaded. A microscopic section shows each bead as a kidney shaped object containing numerous globules. The beads are, in fact, "batteries." The contained globules are tiny stinging cells, whose normal function is to capture planktonic organisms and small fish which serve the animal for food. Biologists call the cells nematocysts. (Charles E. Lane)





STINGING CELLS CLUSTER along the entire length of a winding man-of-war tentacle. These fluid-filled bladder-like cells contain a hollow coiled tube. The photograph shows some of them removed in the laboratory for microscopical examination. The poison they hold is about as toxic as crude cobra venom. It is fortunate that *Physalia* cannot inject as much venom as the snake—else they would surely eliminate ocean bathing along some of our best tropical beaches during the winter tourist season. (Charles E. Lane)

attempt to feed on filter paper, or glass, which has been dipped in a dilute solution of this chemical.

Glutathione, the substance that stimulates this reaction, is very widely distributed among plant and animal tissues. It appears to be a constituent of, or to contribute to the activity of several enzyme systems with such varied activities as the breakdown and synthesis of proteins, and intracellular oxygen transfer. It is reasonable to suppose that this material might be liberated by the tissue breakdown which follows the death of living tissues.

The tentacles, when they are examined with a hand lens, are seen to be beaded throughout their lengths. Higher power of the compound microscope reveals that these beads are, in fact, "batteries," each containing hundreds of tiny stinging cells, whose normal function is to capture planktonic organisms and small fish which serve *Physalia* for food. The biologist calls them nematocysts.

The stinging cells are of the same general order of size as the red blood cells of man and therefore, of course, they are invisible to the naked eye. Fluid-filled bladder-like structures, they contain a hollow coiled tube.

When the nematocyst is properly stimulated by contact with a suitable prey organism, the inner tube is everted forcibly. The reaction here resembles that of the finger of an inside-out rubber glove when it is blown out. Eversion of the inner tubule exposes its armor of barbs and spikes, so that the entire structure now resembles a harpoon and the rope which connects it to its identifying buoy.

Penetrates Surgical Glove!

The thread-like tubule may be twenty to fifty times as long as the diameter of the stinging cell. The individual tube is hollow and its outer end is pierced by a tiny opening through which the poisonous fluid contents of the bladder may be injected directly into the prey organism, or into the skin of the unwary human who may become involved with the animal. This mechanism is so strong that it is capable of penetrating an ordinary surgical glove, as those working with it in the laboratory have found through painful experience.

One Thousand Deaths in a Thimble

Recent work in The Marine Laboratory shows that the fluid content of the nematocyst—the toxin—is an ex-

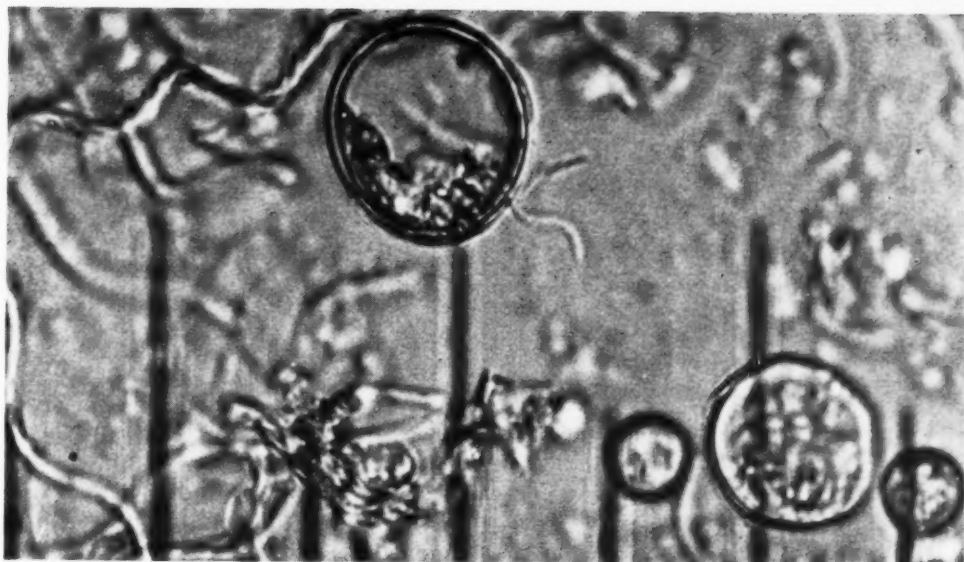
ceedingly poisonous protein substance. It is a neurotoxin. In other words, it effects the nervous system. But it does not dissolve the red corpuscles of the blood in the way that hemolytic snake venoms do.

When injected into mice, the lethal dose is approximately 0.037 ml per kilo of mouse. Since the test mice weigh only about twenty grams, it is clear that the amount of this material required to produce almost instant death in a single mouse is exceedingly small indeed. In fact, one thimbleful of the fluid is sufficient to kill well over one thousand mice.

The poison of the man-of-war is in the same range of total toxicity as crude cobra venom. It is fortunate that the Man of War is incapable of injecting a dose of venom into man equal in volume to that introduced by the bite of the snake—else *Physalia* would surely eliminate ocean bathing along some of the best tropical beaches during the busy winter tourist season.

Can Sting Even in Dry State

The Marine Laboratory's research has been concerned with the effects of pure toxin. Before this could be prepared, it was essential to develop



THIS IS WHAT HAPPENS when the Portuguese man-of-war fishes! Stimulated by contact with a prey organism, the inner tube of each cell is everted forcibly, exposing its armor of barbs and spikes. This harpoon-like tubule may be twenty to fifty times as long as the diameter of the stinging cell. From a tiny opening at its outer end it injects poison directly into the prey organism or into the skin of an unwary human. (Charles E. Lane)

methods for the separation of pure undischarged and still-reactive stinging cells from tentacle tissue. Eventually a means of doing this was worked out. But, even so, one gallon of fishing tentacles is required to produce about 50 grams or about 1½ ounces of pure nematocysts. These retain their capacity to discharge and to produce typical effects for weeks, even in the dry state.

This conclusion was forced on us when nematocysts, or stinging cells, that had been permitted to dry on laboratory forceps or laboratory clothing, discharged days or weeks later, and produced their painful effects on laboratory personnel.

Work with the purified toxin in the laboratory shows that it is surprisingly labile or chemically unstable. Thus it is inactivated by warming to 60° C; by exposure to acids and alkalis and to organic solvents such as alcohol, ether, acetone and the like. It withstands freezing and will remain active for at least a year when it is stored in the frozen state.

Effects of Other Tests

It may be freeze-dried under vacuum with no appreciable drop in virulence, but drying at atmospheric

pressure and slightly elevated temperature always inactivates the toxin. Among laboratory animals subjected to injections of the toxin have been fiddler crabs, fish, frogs, mice and rabbits. For certain analyses, the toxin was added to the perfusion fluid bathing the isolated heart of the clam.

Dramatic Reactions

In the fiddler crab, the response to the toxic injections is dramatic and predictable. When the needle is withdrawn and the crab returned to its container, it makes a few quick running steps, then stops abruptly as it apparently suffers a general contraction of the flexor muscles of the walking legs. As a result of this, the crab appears to rise slowly to its tip toes. It remains paralyzed in this position during the gradual relaxation which terminates in death within minutes.

Fishes suffer disturbance of equilibrium, muscular spasm, local changes in color, and die within a short time. Frogs exhibit equilibrium changes, muscular spasms due to massive discharge from the central nervous system, respiratory arrest and death. In mice the response varies somewhat with dosage, but the basic effects here seem to be due also to

the involvement of neural centers which control breathing and voluntary muscles. The mouse becomes acutely ill and may die in seconds after intravenous injection of toxin.

Clues for Treatment

These observations provide some clues for the rational treatment of a human being who has been the unfortunate victim of contact with the tentacles of *Physalia*. Of first importance is the removal of the adherent—and still dangerous—tentacles. On the beach this may be done by scrubbing the afflicted area vigorously with sand and water.

Then it is essential that the undischarged nematocysts still present in the area be inactivated as promptly as possible. This may be done by local application of rubbing-alcohol, gasoline, kerosene, or other organic liquid which may be at hand.

These measures will insure against aggravation of the severity of the attack. They probably will do little to alleviate the effects of the toxin which has already been absorbed. Further treatment should be under the direction of a physician, who will prescribe suitable measures to correct symptoms of shock, and the *malaise* associated with a severe attack.

HAE-NYO GIRLS

By
Don
Byers



Copyright 1958 by Donald J. Byers



Perched easily on the sharp porous chunks of old lava flow, a Cheju Island diving girl cracks a 20 cent smile for the camera. Until her professional shyness was overcome with a small donation to the grocery bill, she was not exceedingly cooperative. Over her left shoulder hangs a brand-new float-net with the gourd neatly bound to the wooden ring. The right hand holds a spear and abalone iron. They've been using abalone irons for hundreds of years.

I WAS on Cheju Island, 60 nautical miles south of the Korean mainland, looking for sea caves which might hold bat specimens for the Smithsonian Institution.

In spite of the almost warm sun that fell heavily through a crystal sky, it was a windy winter day. A northeast chill swept sharply off the snow plains of the mountain and coursed unbroken to the rugged jumble of that volcanic shoreline.

Air temperature was close to forty. The wind peaking at fifty knots made the damp air feel like breath from a packing house cooler. It was damnably cold. At my side, the water swelled in relentlessly from the Straits of Japan. Water temperature was about fifty degrees. I shuddered at the thought of approaching the water on a day like this, even with a suit. It was simply not inviting.

Rounding a ragged chunk of sponge-like black rock, I broke into the privacy of a handful of Korean skin diving girls, or "Hae-nyo," who were warming themselves before a straw fire. As the wind whipped torn fragments of pungent smoke out to sea, the girls frowned at this pale stranger. They looked to be between twenty and thirty, but appearance is deceiving with these islanders. Some were wrapped in a cloak or blanket of surplus khaki for added warmth, but most were clad in the usual skin diving dress of Cheju Island—a white or light-colored suit of thin cotton, covering arms and legs to the elbows and knees. The cloth was so thin

it was almost transparent when wet. This fact, and the necessity of using the open beach or rock nook for changing into diving dress has made the territory of the Hae-nyo popular tourist fare for the G. I.'s as well as a generations-long stream of Korean visitors from the mainland.

My interest in the diving girls was strictly academic, of course, but on this particular freezing January day I found it very difficult to reconcile this thought to the girls themselves. The camera hanging from my neck made my intentions even more suspicious. I soon learned that attempts at friendship would be impossible.

As large and small bits of loose rock whizzed past me with surprising velocity, I understood the gals weren't merely playing games. They were serious. No interruptions and no photographs. I complied and moved back a few paces to wait for developments.

These gals are not only serious, they are healthy. Not an ounce of unwanted flesh burdens them. Fascinated, I watched the column of girls head for the water, dressed in their abbreviated long johns. Although an occasional splotch of blue hinted at the air temperature, not a moment's hesitation marred their Spartan procession to the water's edge and effortless glide into the sparkling coastal pools.

As they swam around the rocky point into more sheltered and scenic coves, the diving girls spread out into a string. One of them rose after a brief surface dive with a writhing mass of white tentacles, the business end of an octopus about three feet across. The diving girl, after surfacing, manipulated the tentacles calmly until they were held in a tight bunch just below the mantle of the octopus. Several quick whacks of the octopus' head against the gourd float momentarily stunned it. Seizing this opportunity, the diving girl deftly slipped her fingers into the siphon, turned the mantle inside out, and stripped off the internal organs. This seemed to do a respectable job of immobilizing the octopus and enabled the girl to thread it on a heavy stringer attached to her float. The octopus was extremely well behaved for the rest of the diving day. Islanders consider the octopus a prize delicacy cooked, raw, or even wriggling. I saw several tidewater fishermen devour succulent bits of tentacle that was still squirming. Americans prefer it cooked.

The gals continually brought up shellfish. Mostly univalve, such as abalone and whelk, they are relatively easy to gather and provide a staple of the trade. Although the abalone are small, almost all undersize by California law, they make a delicious meal when prepared by an island cook.



Pulling a fast switch, this diving girl changes gourd floats on a net just bartered away from her with two Japanese face plates and 40 cents. After leaving the beach where the transaction was made, she hurried home to pick up a half tarred gourd, rushed to the edge of the road and waited. Waving us to a stop, she made a deft change while explaining that I wouldn't need a fully tarred gourd for occasional use. The presence of her husband, a Korean Army enlisted man complete with rifle, lent grave authority to her argument.

The girls occasionally surfaced beside their floats with a fish on the end of their spears. Unable to get faster and more succulent varieties, they prey on slow trigger fish and bottom feeders.

I never saw them bring up a pearl oyster—pearls are found nowhere in the waters off Cheju Island, but they did find an occasional piece of semi-precious petrified wood that brings a handsome reward. The girls are always on the lookout for a piece of this brown-black substance, produced by the action of minute organisms on tree branches which have lain underwater for hundreds of years. Island craftsmen pay a good price for the raw material, for cigarette holders, lamps, and swagger sticks to sell to the wealthy luxury market.

Huddling on a frigid rock, I watched the girls in the water rest occasionally on their gourd-net floats. These are fabricated from materials available anywhere there is soil to grow a gourd. The seed pod is dried, scraped out, and

tarred for waterproofing. This float is then fastened to a wooden ring which holds open a deep hand-woven net for their catch.

In moments of exhaustion, which are astonishingly far between, the girls surface, drape themselves over the float, and soak up as much of the sun as possible.

As they swam by, I noticed that their equipment varies with individual preference, but there is no passion for complex gear. Faceplate or goggles, float-net, spear and abalone iron make up the total package. Sure helps on those miles-long walks from home to the diving territory. One of the gals had equipped her beer-can and window-glass faceplate with a short length of rubber tubing. On deeper dives she equalized pressure by blowing into the tube. Several of the divers were wearing Japanese-made rubber faceplates.

Later in the year I tried one of these

(Continued on Page 57)

DRIFTWOOD

Please address all notes, letters and stuff to:

"DRIFTWOOD"
Skin Diver Magazine
Lynwood, California

Mailed that photo, yet?

Some of the pix, for our *Miss International Beach-Temptress Contest*, have begun arriving and it's already obvious that picking a winner isn't going to be the easiest job in the world—even if it is going to be the most enjoyable task imaginable.

I trust you will have your photo in the mails on or before the 10th of this month when the contest deadline closes. Remember: no color pix and no photos smaller than 5 by 7 inches, and all photos become the property of SKIN DIVER Magazine.

It warms the cockles of my lecherous heart to think that somewhere there is a lovely little doll—be she blonde, brunette, brownette or redhead, be she tall, short, slender or plump—who will find herself the owner of \$150.00 worth of high quality beachwear and accessories in addition to possessing the *Miss Beach-Temptress* title, come July and the contest results.

Get those pix mailed now, eh!?

You are
Cordially invited
to Participate in
the
Miss International
Beach-Temptress
Contest

See contest rules in "Driftwood," May issue

TO HELL, INDEED, WITH TOGETHERNESS

Quite sometime ago, author Philip Wylie wrote a very reasonable and penetrating article entitled *To Hell With Togetherness* for True Magazine. Perhaps you remember reading it. Anyway, in this exceptionally sane piece Wylie hit emphatically upon any number of points which I seriously contend no American Male should ever allow to be clouded, diluted or derided in his own mind.

Actually, there isn't a damned thing wrong with *Togetherness*—provided it's practiced at the right time and in the right place. *Togetherness* is perfectly fine for P.T.A. meetings, week nights before the family hearth, drive-in movie theatres, dances, afternoon teas, frequent jaunts to the mountains, deserts and shores, shopping trips and any number of sundry activities in which the American Male (married or single) may find himself fortuitously sharing the charming company of his favorite female. However, it's my opinion *Togetherness* has no place in serious skin diving. And by 'serious' I mean that diving wherein the whole outing is designed to give a group of men the opportunity to endure outing conditions which most women would find too uncomfortable. Many a tremendous diving expedition has been cut short because somebody's little woman suddenly became frightened of the weather conditions, began worrying about minor physical ailments or brooding over the fact that none of the group were paying

as much attention to her as they were the fish. Others—many others—have admitted experiencing precisely this dismal sort of thing, and their opinion matches mine: Leave the babes at home if you and the boys want a really enjoyable trip.

In past *Driftwoods* we have kidded the little darlings rather unmercifully. We have pretended to uphold the ridiculous Lord & Master theory. We have facetiously panned the feminine diving ability. If it means much, I apologize to the ladies: Some of you are superb divers, most of you are pretty damn good divers and almost all of you are delightfully good sports.

But none of you belong on a diving outing designed for men. None of you.

To conclude this biased diatribe regarding *Togetherness* in skin diving, I refer you to the chapter upon Marriage contained in Kahlil Gibran's book, *The Prophet*: "But let there be spaces in your togetherness that let the winds of heaven dance between you."

Amén.

THINGS COULD BE VERSE

Have you ever thought in the heat of the day,
of a world that is near—though yet far away?
Wanting to visit, but not knowing where,
to find the right means of taking you there.
Have you often wondered what life rules the waves?
And what strains of nature could soon be your slaves?
Come down with me, stranger, on the next few dives,
And be not alarmed if they change both our lives.

RICHARD PARKINSON
Wilmington Scuba Umbins
Northeast Council of
Skin Diving Clubs

Forgive the ruthless editing, Dick. Space, y'know.

I want fresh fish in the pan,
I want the sun on my face,
I want a skin diving man,
I want a happiness place.
I need a dreamer, it's true,
Yet brawny and brave and forthright,
Some guy to share life through,
Morning and noon and night.

DEENA ELLEN JONES
San Francisco, Calif.

Applicants will kindly form a hysterical line to the right.

TONIGHT THE NATIVES ARE MORE RESTLESS THAN USUAL

Would you please give me some information on girls who like to go skin diving. Girls over 16 and under 21. I do not like to use your magazine for this purpose, but . . .

EDWARD C. BENOIT, JR.
13 Kimball Road
Methuen, Mass.

Don't worry, you won't.

The Barbara Peters published in your April issue of *Driftwood*—has a qualified diver to help teach minors. Matter of fact, I had just such a group in Pennsylvania but now I'm in New York, looking for just such a group. Please send her my name and address and phone number, and let her take it from there.

MARVIN J. WELT
72 Orange Street
Brooklyn 1, N.Y.
JA-2-3658

Saaay . . . your approach is even better than Benoit's.

Unk rebok, I think the humans who read this jive would like to see a pix of the puss that pushes this jive. Hou's about it?

MIKE WHITE
Pensacola, Florida

Any day now, any day.

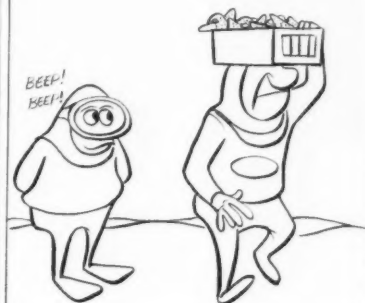
Phooey and double phooey on you and your alleged gentleman divers. I went to all the trouble of getting in touch with a fellow in my locality who said, in your column, that he wanted a girl to teach diving and share his diving outings with. I was dumb enough to go out with him and, believe me, it wasn't diving he wanted to teach me. Far from it. Nobody will ever convince me those creeps whose names appear in your column aren't just a pack of wolves. I know what they're really after.

PENNY BENTON
Brownsville, Texas

You — heh, heh — do, eh.

SKIN DIVER—June 1959

McSPLASH by Kohler



I've been following Driftwood for a couple of years now and, while I must admit I find it entertaining enough to warrant reading it first, each issue, I must also say you certainly never offer anything informative or constructive to skin divers who only hope to increase their knowledge of the sport.

DANNY MEERSON
Sunset Beach, Calif.

You trying to hurt my lousy feeling or something?

Western Union Telegram: KOHLER, YOU'RE TOPS.

President
YMCA GILLMEN CLUB
Hartford, Conn.

Well, we know it—but how are we going to sell the snobs this bill of goods? Go ahead and name a ping-pong table after me and see what results we get.

PASS IT THE COFFEE CUP

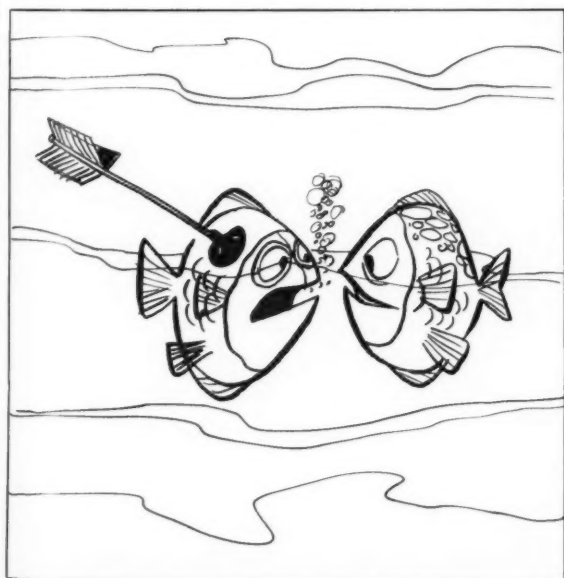
If there's anything we need—and need badly—on this imaginary jetty, it's assorted, offbeat photos of every conceivable phase and department of diving, beachcombing and refined wenching. I would especially like to see some nice, wild Philosophies From Profound-types show up in the mail, too. Surely, there must be a good rebel amongst us who—while lying around on this shore or that—has managed to figure out something new and refreshing in the Theory Of Better Living Department. If he or she exists—kindly come forward that we may publish your crummy notions and slather attention and praise all over you.

Later on, when all this contest hubbub has been settled and becomes but a pleasant memory, I hope to sell the publishers of this spirited sheet on the idea of financing a monthly photo bit. Payment might be something like \$5 or \$10 for the best, unusual skin diving photo picked for publication herein, monthly. Let me know if you think this idea has merit—and even if you *don't*, be sure you offer your comment.

It's my opinion that those hardy adventures of the roiling surf, those intrepid invaders of the rumbling, crashing spray—The Surfers—are probably closer cousins to Skin Divers than anybody else who roams the waterside sands. Furthermore, since I don't believe they are represented in any publication and since I know their numbers are rapidly increasing on beaches everywhere—I propose we begin devoting a portion of our attention and affection to their sport and their viewpoints. Consequently, be it known that Surfers are now welcome to *Driftwood*. This is not a paid invite. Only recently have I become aware that many divers *also* participate in Surfing events and gatherings—and I feel Surfing is a coming thing in those stretches of shore whose waters provide the necessary elements for satisfactory Surfing. I could also be wrong as hell.

And, now, if you've nothing better to do than sit there mumbly and glowering at me, I'll away to limbo until *next* month when this jetty magically rises from a mythical sea to provide our trysting place. Don't bring anybody who lowrates the Beach Life or prefers cold facts to pretty girls, clear water and hot coffee.

—Kult Leader Kohler

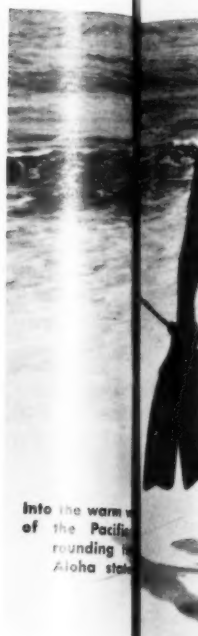


JUNE-WRITE-THE-CAPTION-CONTEST . . . Write an appropriate caption for the above cartoon and win a two-year subscription to "Skin Diver Magazine." All entries will be judged during secret session by Kult Leader Kohler. Closing date for receipt of captions is July 1, 1959 and the winner will be announced in the August issue.

SKIN DIVER—June 1959



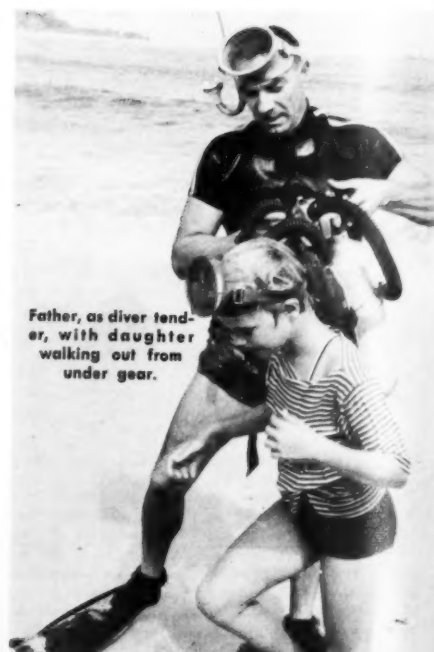
Dr. Thomas H. Richter and daughter, Here, getting ready for a dip.



Into the warm waters of the Pacific, rounding the Aloha state.



Back from a happy diving expedition.

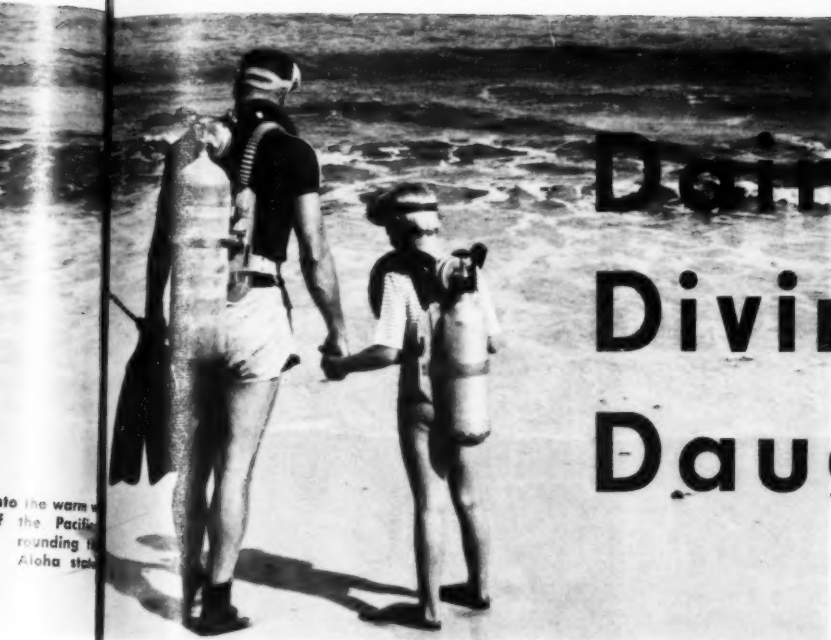


Father, as diver tender, with daughter walking out from under gear.

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By John W. Gray

The author is a former Qualified Diving Officer of the U.S. Navy, WW II, now a LCdr. in the Ready Reserve working for the Navy at Pearl Harbor, where he formerly trained divers, and submarine personnel in escape techniques. Mr. Gray currently dives in scuba for sport, and has written a column about diving for the "Honolulu Advertiser" for the past two years, entitled "Operation Underwater."



Dainty Diving Daughter

MANY a publicity shot has been made of the many lovely maids who happily pose in bathing suits and skin diving gear . . . but who "don't go near the water" . . . as the little poem so tritely puts it. But the little heroine of our story really gets right down to cases, and in fact likes nothing better than to get into the subject right over her pretty little head!

Tiare (Tee-a-ray) was nine years old last December and for her ninth Christmas present received her own tailor-made scuba rig. Not only does she wear it with savoir faire but she uses it like a veteran. Toward the end of 1957 Tiare accompanied her mother to the home of a friend who is blessed with a swimming pool. As Mrs. Richert had offered to help clear and replace the drain in the pool. While so engaged whom should she find tugging at her but daughter Tiare, who had "skinned" down and was making excellent sign-language gestures plainly indicating she wanted to use her mother's

mouthpiece (doubtless from tv'ing Lloyd Bridges in "Sea Hunt").

The ease with which she displayed an ability to use a scuba quickly led into some early skin diving lessons, and it was all too soon that father and mother had demands made upon them for a scuba outfit just like those of brother Mark (19) and brother Lance (16). No mere older brothers were going to show this young lady up!

And so last Christmas Miss Tiare Richert became the proud owner and user of her own scuba gear. A junior-sized bottle with an air charge of 1800 p.s.i. and tailor-made packboard and harness, gives this young lady adequate equipment to dive right along with father, mother and brothers. But not only is Tiare gear-equipped . . . she is also equipped with the knowledge of how to clear her mask, how to remove her mouthpiece, how to exhale while surfacing and all such training routines, in fact. Naturally, her doting parents do not exactly turn her loose into the big blue Pacific, but she can hold her own in those shallower depths which Islanders know abound in Hawaii and which offer all the beauty and enchantment of the undersea world, as found in few other places in the world.

Little Miss Tiare Richert is not only a model for young divers to pattern

after, she actually is a model. Since she was three years old this charmer has posed professionally for Hawaiian children's styles, and has recently been depicted in *Harper's Bazaar* and *Vogue*. A fourth-grade student at Punahou School, she has also learned to do a smooth Hawaiian dance. All this adds up to a total activity very few nine-year-olds have!

It must be admitted that Tiare has grown up in an atmosphere of interesting talk and action about skin diving. Dad (Thomas H. Richert, M.D.) and mother Tetta became skin diving enthusiasts in La Jolla, California, diving avidly for abalone about twenty-five years ago, before taking up residence in the Islands. They still have the hand-carved bamboo goggles they used then. Of course, with the advent of self-contained underwater breathing apparatus they very soon became devotees of that sporting, going in mainly for shell collecting. The family residence is definitely a beehive of activity for this busy family. Doctor Richert is not only a member of the Conchology Club, Malacological Society, and Hawaiian Academy of Science, but also President of the Honolulu County Medical Society, and Mrs. Richert has taken many top honors in her class as a driver in all local sports car races in the Islands.

The Story of "Bubbles" a . . .



By **DAVID H. BROWN**

Aquarist



Photography by Fred Lowe

ON February 28, 1957, Marineland of the Pacific's collecting crew, headed by Chief Collector Frank Brocato, after weeks of equipment modification, disappointment and hard work, captured the first whale ever specifically sought for live display.

The prize, a young female pilot whale, was caught near Catalina Island, off the coast of Southern California, and

measured exactly 13 feet from the tip of her somewhat bulbous nose to the end of her tail. She weighed somewhere in the region of 1300 pounds.

Upon arrival at Marineland, an enormous amount of lifting, pulling and straining by almost the entire male staff resulted in the whale being lowered into a holding tank, specifically built for our newcomers.

Although her new quarters were really quite large—the pool being 30 feet in diameter and 6 feet deep—it became obvious that Bubbles (as she was later named) considered her new residence quite inadequate. After bumping her nose once on the floor of the tank, she refused to submerge. She persisted in floating on the surface and seemed extremely reluctant to swim. We soon discovered that sunburn is a condition not confined to humans alone, for after two days of basking on the surface of the tank, our new whale developed an alarming case of sunburn and a large area of skin on her back and dorsal fin began to peel. We applied zinc oxide

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to alleviate this condition temporarily and it appeared to help considerably. Soon, a further complication made itself evident. Bubbles refused to feed. So, after presenting her with choice squid, mackerel, live anchovies, etc., all to no avail, it was decided that she should be moved to our three-story oval fish tank. This tank is 100 feet long, 50 feet wide and 22 feet deep and we all felt sure that a tank of this size would suit even Bubbles' discriminating taste.

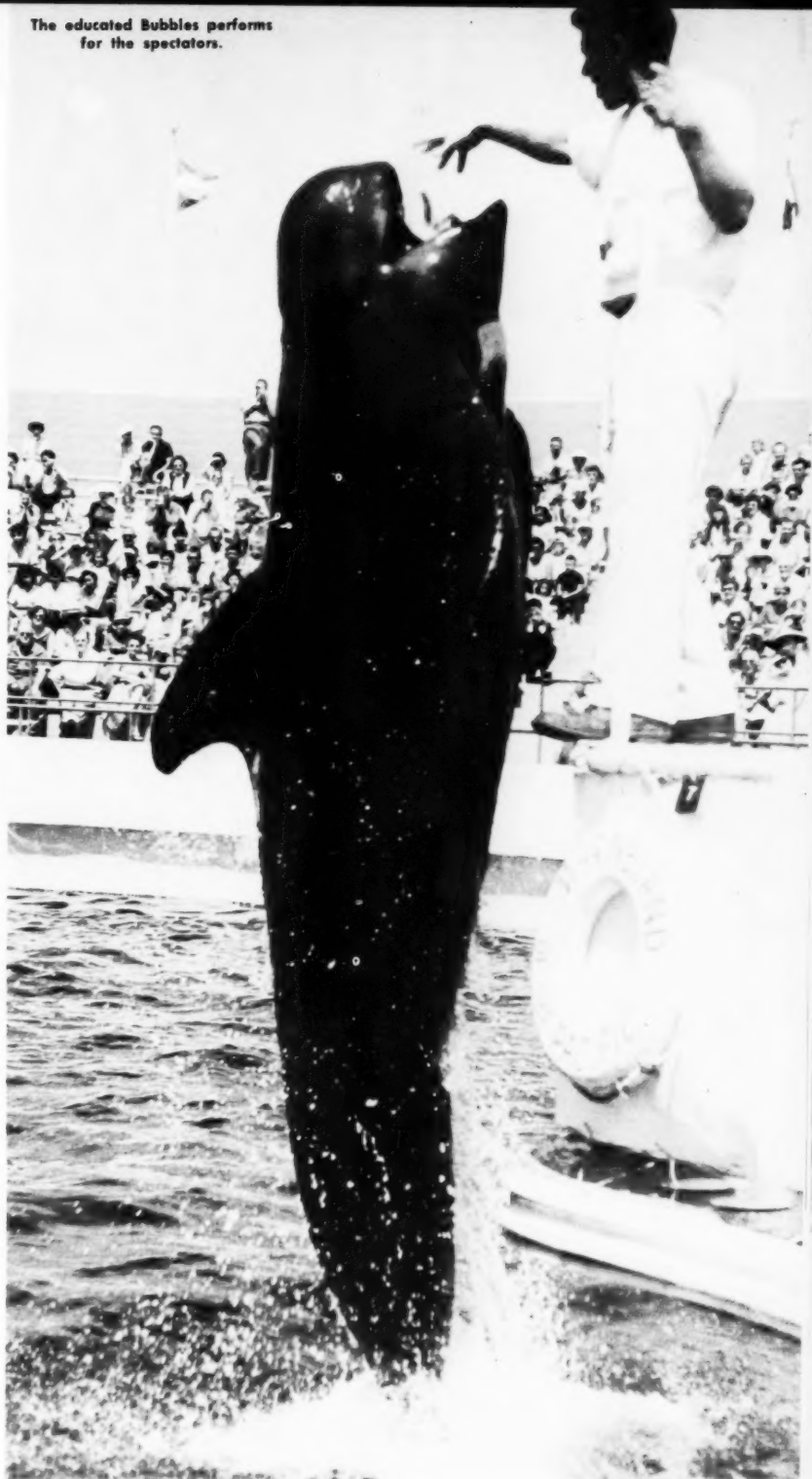
So, only seven days after her capture, our new whale was again moved. During the transfer we injected intramuscularly 10 cc of Vitamin B-12 and 10 cc of Metacorten into her tail, the former to stimulate her appetite, the latter to make her feel she had not a care in the world. Without more ado, Bubbles was lowered on a specially constructed stretcher into her new home. In spite of the monstrous shot of appetite stimulant, persuading Bubbles to accept her first meal in captivity still appeared to present a major problem. Although she was now able to cruise around in over half a million gallons of clear sea water, she assiduously ignored the delectable squid we proffered her later that same day.

Force feeding now seemed the last resort. In the past I have used this method to feed birds, seals, lizards and even fish. But never could I have believed the day would eventually dawn when I would be called upon to force feed, of all things, a whale—an extremely lively whale, at that! Even the thought made shivers run up my spine.

Still, on the following day, feeling distinctly uneasy, I entered the oval tank wearing swim fins and a Desco mask. Firmly grasping a pair of metal tongs in my hand, I swam toward the whale, who demonstrated no alarm at my approach. Sinking a little, I swam up under the animal and forcibly jammed the tongs into her lips in an effort to make her open her mouth. This she did almost immediately, giving me a quick glimpse of an extremely formidable array of teeth. After persistently following her around for several minutes and forcing the tongs into her jaws at each opportunity, she rapidly appeared to learn what was expected and at my approach began persistently to snap her great jaws in my direction. This behavior was distinctly unnerving especially after taking into consideration the fact that no one previously had ever attempted to force feed a whale, and the subsequent behavior of such an animal under these circumstances was completely unknown.

The next step was quite clear. After leaving the tank, one of our divers, Chuck Somar, and I commenced to thread squid onto lengths of light line

The educated Bubbles performs for the spectators.



and then tied the ends of the line together. After assembling several of these somewhat odorous objects, we both entered the tank, each armed with tongs and string of squid to boot. At the far end of the tank, Bubbles awaited our arrival. The great jaws again gaped

ominously as the tongs were thrust forward. The squid was shoved into her mouth, only to be belched out immediately.

Chuck, following behind, tried also, with the same results.

(Continued)

Bubbles at this time was ponderously trying to evade our efforts. However, persistence on our part paid a great dividend. After about 20 minutes of ramming food unsuccessfully between her jaws, Marineland's new whale appeared to realize what we were attempting to do and swallowed a rather battered string of squid. Then she began to eat ravenously.

In the following 72 hours Bubbles consumed 210 pounds of food. After the first mouthful had been swallowed, it was found to be no longer necessary to force feed her. She greedily accepted food thrown to her while she swam slowly around the tank.

The ensuing days revealed a great improvement in the whale's general behavior. She became increasingly more venturesome and began to sound and thoroughly explore the confines of her new home.

It was immediately evident that the other 2000 or so inhabitants of the great oval tank—ranging from mighty Black Sea Bass of 400-odd pounds to small perch-like fish of a few ounces—were not to be menaced in any way by her bulky presence. In fact, only once was she observed to make an aggressive pass at another tankmate. She lunged at a dolphin fish, the fastest fish in the tank. It persistently made off with Bubbles' squid, sometimes taking the food almost out of the whale's mouth. But Bubbles never could catch the offender.

Squid appeared to be her favorite food. Mackerel and sundry other delicacies were gently mouthed and then ejected with some determination. After



Marineland of the Pacific diver feeds the whale a few tidbits to keep her happy while he spreads food to the rest of the fish in the giant tank.

experimenting for a few days and endeavoring with a little give-and-take to see how much food she could eat comfortably, it appeared that a daily allotment of 60 pounds of fresh squid would suit her dainty appetite admirably. This amount she consumed with gusto.

Now the feeding problem was whipped. Next came training. Porpoises have proved to be great training material and during the last few years the trainers both at Marine Studios in Flori-

da and at our own Marineland in California have had great success in educating these wily creatures of the sea.

The porpoise is the smallest member of the toothed whale family and by some authorities is credited with being the third most intelligent animal in the world. So surely the pilot whale must be quite intelligent too. Bubbles so far had certainly indicated a willingness to learn and adapt herself to her new environment. So it was decided to launch a whale training program.

First, a small platform was erected at one end of the tank and from there a trainer offered Bubbles her food three times a day. The animal's ability to learn was fantastic we soon discovered. Only ten days after being placed into the oval tank, she would lift her head completely out of the water and wait for the food to be placed into her mouth by the trainer. Never would she snap her great jaws shut until the squid had been released from the trainer's hand. The days that followed brought remarkable results. Tricks were learned in days which would normally take a newly captured porpoise months to perfect. In a few weeks, Bubbles learned to blow horns, jump over a hurdle, squirt water, to waltz (this consisted of rolling around in the water in a most amusing manner), retrieve miscellaneous objects (such as beach rings and balls) and to lunge almost completely out of the water to gently take food from the trainer's hand.

Then one day the blow fell—a pale-faced trainer announced that he believed Bubbles had swallowed a beach ring. This was actually an inflated rub-



Bubbles deserved a special bed when she was transported from the Ocean to the Marineland tank, a few hundred feet away.

ber innertube 18 inches in diameter. This news was received with a certain amount of skepticism by all concerned, for how could the animal have swallowed such a large ring? Surely the trainer must have been mistaken.

The divers immediately set forth to look under all the nooks and crannies in the rockwork at the floor of the tank, but to no avail—not a sign of the innertube was to be seen.

The behavior of Bubbles was still quite normal. Sixty pounds of squid disappeared quite regularly each day in reward for her repertoire of newly learned tricks. We became lulled into a false sense of security. After all, with an appetite like that, there could not be much amiss. Perhaps our fears were groundless after all.

Four days passed and on the fifth day we had the first indication that all was not well. Only 30 pounds of squid disappeared into the cavernous mouth. On the sixth day, she completely refused to feed. It was decided that the tube had actually been swallowed. Urgent phone calls were placed to some of the leading veterinary authorities in the country, who almost without exception informed us that if the tube were not removed the resulting gastric block would eventually prove to be fatal.

Surgery was impractical because of the reluctance of the blubber-covered tissue to heal and the great difficulties encountered when attempting to administer anesthesia to marine mammals.

Removing the tube orally with the help of a fluoroscope was considered. This, however, had been tried before with the patient being a porpoise that had been unlucky enough to swallow a rubber ball. During the operation the frightened animal succumbed to shock.

Dr. Schroeder, Director of the San Diego Zoo, suggested the possibility of administering an emetic which would cause Bubbles to disgorge the tube. So we gave our whale a 100 micrograms of aphomorphine, a drug specifically intended for this type of procedure. Results were negative.

Another phone call to Dr. Schroeder informing him of this brought forth the suggestion that we call Dr. J. Wheat, Professor of Veterinary medicine at the University of California, Davis. Dr. Wheat in turn suggested that it might be possible to break up the tube and thus enable the animal to eliminate the rubber normally by feeding it a gallon or more of mineral oil.

This sounded like a good idea. However, the problem remained—how were we going to persuade Bubbles to swallow an ounce of oil, much less a gallon? Nevertheless, a diver was dispatched to the local drugstore and returned with a gallon and a half of this material.

Fortunately, next day Bubbles decided



Hundreds of hours were spent by the trainers and Bubbles in preparing her debut for the general public. She is now the sweetheart of the nation and millions of people are raving about her performances.

to suspend her fast temporarily. She ate 15 pounds of squid and we saw to it that each squid was filled with mineral oil. Next day she consumed another 35 pounds of food, which had been treated the same way. The following day, Saturday, found her feeling very much better and during the course of the day she ate her full allotment of squid, each full to the brim with slippery oil.

On Sunday morning, driving to Marineland, I was wondering how Bubbles would feed that day. Never in my wildest dreams did I imagine the manner in which I would be greeted. No sooner had I set foot in Marineland's maintenance yard than a wildly gesticulating figure started shouting at me.

It was Joe Beazie, one of our porpoise trainers. In his hand was—of all things—a somewhat oily, but unmistakably real, rubber innertube.

Joe had come to work somewhat earlier than usual that morning. Upon going to the top deck to see how Bubbles was faring, he was amazed to see her playing with the tube. He im-

mediately scooped it out of the water with a dip net, whereupon Bubbles commenced to regurgitate large quantities of partially digested squid and oil.

The rubber innertube was still fully inflated and was virtually unmarked—even the maker's name was still startlingly apparent after reposing in Bubbles' stomach for 12 days.

Our whale's training program has once again resumed. We have, however, learned our lesson the hard way and will never again use small props when working with this animal. She is now leaping completely out of the water to take food and seems none the worse for an experience which, I feel, proved more harrowing to certain of the staff at Marineland than it did to the whale.

The future will also see the development at Marineland, California, of the only trained whale show in the world, and will give us fortunate humans who work with these fascinating animals a far greater insight into the behavior and natural history of another little known denizen of the deep.

Skin Divers Scour
Coal Pit to Find
Stolen Property
Frogmen To
Seek Relics
Grab a Shark
At Your Peril

STOLEN GUN
IS RECOVERED
BY SKIN DIVER

ASSEMBLY TO KILL
SKIN DIVING BILL

GAUGE IS FOUND
IN SUNKEN SUB

Treasure of Ages Awaiting To Sea Serpents

Diver Finds Ocean Floor Rich 'Frontier'

Divers Probe Green Lake

Wreck Found
Of Bermuda
Destiny Sk

YMCA to Begin
12-Week Course
in Skin Diving

Divers Find
Sailing Ship

Reservists Start
Skin Diving Course

NEWS CURRENT

NEWS FROM AROUND THE GLOBE
COMPILED AND EDITED IN
SKIN DIVER OFFICES.

Local diving news from readers welcomed.

Nothing Like a Refreshing Swim



PLACIDA, FLORIDA—Dr. Eugenie Clark, director of the Cape Haze Marine Laboratory, in connection with her scientific research at the laboratory is making a study of shark behavior. A pair of nine-foot lemon sharks are kept in captivity and for the first time, as far as is known, scientific records are being made by daily observation of these creatures, their behavior and reflexes. One of the tests conducted included rigging an underwater bell to a board that was used to feed the sharks. Contact with the board made the bell ring and after several tests, the sharks would push the board and ring the bell in anticipation of food. Dr. Clark stated that the brains of sharks are on a much lower level than those of porpoises who respond quickly to training.

WASHINGTON, D.C.—One of the seven men chosen as the nation's first candidates for outer space flight, Lt. Malcolm S. Carpenter, lists among his hobbies, skin diving.

BALTIMORE, MARYLAND—Skin divers recovered the bodies of five men after an Air National Guard plane crashed in the harbor. A sixth Guardsman was still missing.

BOSTON, MASSACHUSETTS—Skin divers were called to assist in a search of Primrose Pond for a gun that was used in the gang-style slaying of Albert G. Freeland, whose bullet-riddled body was found on a farm in Burrillville, R.I.

INDEPENDENCE, MISSOURI—Jack Seat, a skin diver, was credited with saving the life of a 16-month-old girl when he applied the mouth-to-mouth method of artificial respiration. The youngster had wandered into the bathroom and apparently fell into the bathtub which contained about eight inches of water.

MIAMI, FLORIDA—Jordon Klein, of Underwater Sports Shop, organized a large-scale underwater search for the missing car of Mary Meslener, who was murdered on February 23 in what turned into one of the city's most baffling murder cases. Despite an air search the car, believed to contain important clues, has not been located. Insurance problems prevented police from organizing a full-scale underwater search. Hearing of the search block, Klein offered to organize at least 100 volunteer divers and to supply their air for the search. However, the mass search revealed the wrong car. A stolen red convertible was recovered, but no signs of the two-toned blue car belonging to the victim were found. Klein plans to bring a smaller group of divers back to the area for a more thorough search later.

YUCATAN—Diver-archaeologist Jack Newbury has just returned from Yucatan where he headed the diving operation at Dzibilchaltun, cenote Xlacah. The work was one in connection with the National Geographic Society-Tulane University Expedition at that site.

HONOLULU HAWAII—March 21, 1959, as the United States scientific research vessel "Hugh M. Smith" was departing from Kewalo Basin on the second leg of cruise number 51 in the Central Pacific, a very hard submerged object (probably a coral shelf) was hit in mid-channel. The vessel was immediately turned about and docked again to survey the damage. George Iida, assistant engineer on board, descended with a shallow water diving mask while Fritz Hertlein, chemist on board, used scuba equipment. The entire 128-foot keel, bottom of hull, and rudder-propeller assembly were inspected and with the exception of a few loose seams just forward of the propeller on the starboard side, there was no damage inflicted. The skag (extreme after section of the keel which draws seventeen feet on this vessel) was laid bare of its paint for about one and a half feet. Thus with a minimum of time lost, the Department of Interior vessel was again able to resume the cruise.

BARCELONA, SPAIN—Antoni Ribera has been appointed president of the Catalonia branch of the CIAS and named editor of the "Mundo Subacuatico," the first underwater magazine to be published in Spain. The Central CIAS has recently obtained the vessel "Cruz del Sur" which is to be converted to a Spanish-type "Calypso".

SPOKANE, WASHINGTON—Divers **Lyle Ray Bennett** and **Gus Richmond** successfully raised a light plane that crashed into **Deer Lake** after hitting a power line. Bennett also assisted in a search for a helicopter that had crashed into a river with a loss of three lives. The 'copter was discovered after several days' diving in freezing water and zero visibility.

MINATITLAN, MEXICO—Capt. **Enrique Martinez Wolf**, manager of the **Salvage and Submarine Search Co.**, and his diving partner **Joe Riveroll** recovered a crane after two days of diving in the cold, murky waters of the **Coatzacoalcos River**.

SANTIAGO, CHILE—A comical incident happened to **Pedro Bailac** when he decided to go diving off the beach at **Algarrobo**. A hungry pelican dived on **Bailac** and ripped his dry suit twice. **Bailac** promptly shot the pelican with his speargun and brought the bird back to the beach.

AMBRIDGE, PENNSYLVANIA—**Jack Balengee** and **Gary Elder** located a truck cab and the driver in the swift waters of **Beaver River**. Composing a standby team of divers were **Leroy Harriger** and **Don Stroud**.

SANTIAGO, CHILE—**Ivan Zanelli** and **Santiago Germain**, members of **FEDESUB**, probably are the first to dive among scaffold, wheelbarrows, electric cables, etc. inside a building. The pair was called to recover a turbine during excavation work of a building. Water pumps used to prevent a flood during the excavation failed and the entire building was submerged.

STONEHAM, MASSACHUSETTS—A dozen members of the **Bay State Aqua Club** assisted the **Medford Police Department** in their search for evidence in the recently cracked "teenage dope ring". The divers unsuccessfully searched the zero visibility waters of **Mystic River** for a bag thrown into the river by one of the suspects.

FAIR LAWN, NEW JERSEY—A pair of skin diving firemen, **John Fawcett** and **Theodore de la Mare**, have formed a rescue unit in **Fair Lawn**. The new skin diving rescue unit will be available for local and out-of-town work.

SAN PEDRO, CALIFORNIA—A Japanese submarine with its 6-man crew still aboard lies off **Pt. Fermin** in about 60 feet of water, just seventy-five yards west of a buoy in the ocean. The sub has been there since late in 1941 when the **Air Force** dropped depth charges on it. Since that time **Navy** divers have been aboard and removed the armament from the deck. In 1955 a salvage firm wanted to raise the submarine, but was rebuffed by the **Navy**. A recent newspaper account revealed that the **U.S. Defense Department** denies that the submarine exists.

GATESVILLE, TEXAS—A Texan, **Otis McDonald**, and his brother, **James McDonald**, have patented a new underwater pistol and have an order for the first 500. The pistol was displayed in the **Seacraft Industries** booth at the **National Skin Divers Convention** in **Boston** in February. The pistol, made chiefly of aluminum, fires a 12-inch-long spear-tipped arrow and has an effective underwater range of 17 or 18 feet. Firing power is supplied by .22 caliber blank cartridges and the firing pin of the weapon goes through the hollow shank of the arrow to fire the cartridge. The gun can be loaded underwater and its inventors claim it can be used extremely accurately for a distance of 12 feet and will kill fish weighing 50 pounds or more.

HOUSTON, TEXAS—One of the features of the recent **Houston National Boat and Sports Show** was a 2500 gallon tank used for skin diving demonstrations. One of the lung divers demonstrating at the show was a small five-year-old girl, **Sandra Flagg**, who is believed to be the youngest lung diver in the state.

A recent report by **Dr. J. Herbert Nagler** on survival in icy sea water states that man can survive for relatively long periods of time in frigid waters. The doctor is out to disprove published statements that—when a ship or plane goes down in the **North Atlantic**—a man can live for only a minute or so in water ranging from 28 to 32 degrees. The doctor pointed out that it takes 20-30 minutes to lower the normal body temperature to 92 degrees, and that once the temperature goes below 90 degrees drowsiness sets in. Therefore, the doctor states, the trick is to keep the body temperature above 90 degrees, and prevent the person from becoming numb and drowsy—which would cause his head to fall forward in the water and result in drowning, not freezing. **Dr. Nagler** cited skin divers' feats in diving in arctic waters to help support his theory.

TROY, NEW YORK—The **Troy Police Department** has formed an underwater diving team. The team members are motorcycle officers **William J. Canavally** and **Robert O'Brien**.

NEW YORK, NEW YORK—**Herb Shriner** is currently planning to use his **PBY** flying yacht for cruises to the **Caribbean** for undersea enthusiasts. **Herb** says the ship will be ready for charter during the summer months.

MONTEREY, CALIFORNIA—Mrs. **Robert H. Pottenger**, 42-year-old wife of the program director of **San Francisco's Central YMCA**, drowned while diving with her husband. The couple was searching for diving gear of another diver when **Mrs. Pottenger** disappeared under a massive wave. They were only 100 yards from shore and only a few feet from each other when the wave struck. The body was recovered within minutes, but artificial respiration failed to revive her.

BALTIMORE, MARYLAND — Underwater observations of four divers, **Carl DiJulio**, **Joseph Hollar**, **Chic Eisenhart** and **Stuart Humphries Jr.** have thrown a new light on the winter time habits of rockfish. While diving on a sunken wreck in 70 feet of water, they discovered the hull packed with rockfish "like sardines." When one was taken to the surface, it would literally explode. One of the divers said they were on their sides, their eyes whitish and glazed and there were six or eight per square foot. The **Wildlife Service** report sent to them on their find indicated the fish had released air from their bodies to hibernate, hence the explosion when they were suddenly brought into relatively light atmospheric pressure.

SANTA BARBARA, CALIFORNIA — **Jerry Franklin Davis** drowned in full diving equipment while his father and two other men watched helplessly from their kelp-entangled boat. The diver's father related that **Davis** surfaced about 75 feet from the skiff and yelled that something was wrong with his lung and then sank. When the anchor was finally freed and the boat reached the spot where **Davis** went down, one of the men dived and recovered the body.

WARWICK, RHODE ISLAND—**Rhode Island Sea Gals, Inc.**, the first all-women's skin diving club in the state was organized recently and will be open for membership to women over 21 with a **Red Cross** lifesaving certificate or the equivalent.

DALLAS, TEXAS—**Johnny Narramore** recovered a stolen safe from the murky depths of a flooded gravel pit after two hours' chilling search, so police could chip off a few paint samples. Police hope the paint chips will provide evidence for new charges against a man suspected of stealing the safe last November. Police had found in the man's clothing and car tiny flecks of paint matching the color of the safe, but needed the safe itself for an accurate comparison. Results of the test were expected within a few days.

ROCKFORD, ILLINOIS—Skin divers were called in to recover the bodies of two **Civil Air Patrol** fliers who were killed when their small plane struck a powerline and plunged into the **Rock River** while they were taking pictures of flood conditions.

PENSACOLA, FLORIDA—The County Sheriff's Department met with various clubs in the area, including skin diving clubs, in an effort to set up a cooperative organization for both air and sea rescue and survival work.

DENNIS, MASSACHUSETTS—**Philip N. Amero**, educational director of safe diving methods for **New England Divers, Inc.**, proved recently that a person can escape from a car submerged in water if he does not panic. **Amero** proved his point very emphatically by driving a 1951 model automobile from a flat-bed trailer into 40 feet of water in **Scargo Lake**. Some 400 persons lined the shore to view the demonstration. **Amero** broke surface about two minutes after the car sank. **James Cahill** acting as a safety man, sat in the back seat of the car wearing a lung. Other safety divers in the lake were **Chris Myland** and **Robert Lynch**.

PONZA—This tiny island off the coast of **Italy**, just south of **Rome**, is attracting hundreds of skin divers to its clear waters and sandy beaches. Once the island housed exiled political prisoners during **Mussolini's** day, and later the **Duce** himself.

NEWPORT BEACH, CALIFORNIA — **Bob Retherford**, president of the **California Council of Diving Clubs** and operator of a diving shop, has found a very interesting pastime. **Retherford** and a trio of other divers discovered the hulk of a sunken vessel believed to be the **Sacramento** while diving a couple hundred miles south of **Ensenada** in **Baja California, Mexico**. The **Sacramento** went down with a loss of 223 lives back in 1872 with \$2 million in 10-pound gold bars, packed in wooden boxes. The passengers carried another estimated \$1 1/2 million in gold they had worked out of the **Mother Lode** country in **California**. The four divers found no trace of the gold in ten days of diving, but plan a bigger trip in the future. The divers reported they discovered the wreck by sheer luck about 11 1/2 miles out at sea in rough waters.

SAN MATEO, CALIFORNIA—A 38-year-old skin diver drowned in rough waters off the **San Mateo** county coast as his wife and two children watched helplessly. **Mrs. William J. O'Connell** saw her husband in trouble and tried to go to his rescue, but she could not swim and was forced back by towering waves. **Mrs. O'Connell** reported that her husband had been diving for two years, but had never gone alone before.

ANN ARBOR, MICHIGAN—Three **Michigan State Police** skin divers and four civilian skin divers probed the murky waters of the swollen **Huron River** for three hours before locating the body of a suicide victim. **Robert Geer** discovered the victim's body in shallow water a few feet from shore.



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HOW TO PEEL ON A RUBBER SUIT

By FRANK CHESLEY

Jack O'Neil, operator of the Surf Shop in San Francisco, happened upon a powderless method of peeling on a rubber suit while fitting a customer. Seems someone had walked off with the shop's talc supply. O'Neil reasoned, "A rubber suit is peeled off—why not peel it on?"

He did. Now, several regulars prefer this method, and it's particularly nice to know in emergencies.

Here's how it's done with svelte surfer Betsy Jo Hawkins doing the honors.



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1. First the suit is turned inside out. The cuffs are reversed about six inches, as demonstrated by Ray Herrick.

2. Betsy slips her feet into the cuffs . . .

3. . . . and peels the pants legs up to the thighs.

4. She works the pants up, being careful to grasp the rubber with the whole hand. (Neoprene rubber can take a lot of abuse, but a finger can poke through rather easily, particularly one tipped with a lady's sharp nail.)

5. Likewise with the shirt. It's turned inside out and the cuffs reversed.

6. When both hands are in, the shirt is . . .

7. . . . peeled up to the elbows and thrown over the head.

8. The shirt is then easily worked up to the shoulders.

9. And it's on without using talc or corn starch. A quick zip and Betsy is ready for the water.

(Note: Non-zipper shirts can be donned in a similar manner. After the shirt is peeled on up to the elbows, slip your head through the neck opening as you would with a sweater and work the shirt down your torso. Be careful at the outset to fit the sleeves correctly on your arms.)



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LA PAZ

UNDERWATER HEAVEN...

Skin Diver Magazine Contest Winner Reports on His Trip

ON JULY 1, 1958, it was announced by Skin Diver Magazine that James C. Stark of Pittsburgh, Penn., was the winner of the giant underwater photo contest. The prize for the winning photograph was a trip for two to La Paz, B.C., Mexico, plus \$150.00 expense money.

Jim chose as his fellow diver and traveling companion Melvin Rose, a fellow club member in the Pittsburgh Scuba Divers Club. Emil Bonavita, Director of Red Cross Water Safety for Allegheny County, decided to join in and get some diving experience, due to many inquiries about the sport that seem to be springing up this far inland. Richard Strong of Chicago, Ill., a diving buddy Jim Stark made in the Florida Keys while on vacation there in 1957, decided to join the group in La Paz. Dick Strong was with Jim at the time he took the prize-winning photo in the Florida Keys.

The trip started for Jim, Mel and Bonny on December 19, 1958. Leaving by automobile from Pittsburgh they headed towards Juarez, Mexico, where they boarded a Trans Mar de Cortez plane for La Paz. The following is a

day-by-day account of the trip taken from the notes of Mel Rose, official historian of the trip.

December 19, 1958—We started from Pittsburgh at 2:30 p.m., after Stark broke away from the KDKA-TV studios where he works and after loading what

driving through Arkansas, Jim began hearing a thumping noise. He stopped and found that a brand new snow tire was coming apart at the seams. Luckily the tire did not blow before we were able to change it a few miles ahead. Continuing on our way we crossed into Texas during the night.

December 21, 1958—Bonny took over the driving about 6 a.m. and was heard to say over and over, "where are the horses and ranches they show in the movies? All I can see are oil wells, desert and a road that seems like it will never end." Finally the end of the road was in sight when we spotted a sign which said "El Paso, forty miles." We arrived in El Paso about 11 a.m.

December 22, 1958—Awaking around noon we showered and took a drive around El Paso. Early in the evening, after "forcing" ourselves to eat a good steak dinner, we crossed the border into Juarez to look over the shops. After beating our way through the barrage of taxi drivers who seemed to be selling everything except a taxi ride, we made it to the shops where we were again met by a barrage of salesmen and Jim bought himself a beautiful leather cam-

BY
JIM STARK
AND
MEL ROSE

seemed like a fantastic amount of baggage and even more camera equipment. We drove straight through the first day, stopping only for gas and snacks or coffee. Total mileage for the day 403 miles.

December 20, 1958—1:30 a.m., while

JIM STARK



MEL ROSE



EMIL BONAVITA



DICK STRONG



era bag after haggling with the salesman. This we learned was the thing to do when buying anything in Juarez.

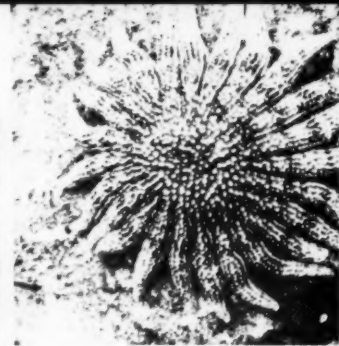
December 23, 1958—Bonny roused Mel and Jim about 9:30 a.m. in order to be sure to get to the Juarez Airport, from where our plane was to leave at 2:55 p.m. Heavens only knows whether it was Central, Mountain, Mexican or Pacific time, everyone had changed his watch in a different time zone, or so he thought! We were at the airport early for the plane and we were happy there was only one plane leaving for La Paz that day, since these Americanos were very confused. With our baggage and tourist permits checked we boarded the Trans Mar de Cortez plane for a very smooth flight to La Paz. The pilots really are good; they made terrific landings on the gravel runways. Our arrival in La Paz was a fine one. We were met by Bill Escudero and Gil Limon of Trans Mar de Cortez and Dick Adcock who ran the boat on which we would do all our diving. At the La Perla hotel we met Dick Strong from Chicago who had arrived the day before. Our party now being complete, we made arrangements with Dick Adcock to do our first diving the next day; the boat would be ready to leave at 7:30 a.m.

December 24, 1958—We awakened at 6:30 on a sunless morning, ate a good beefsteak breakfast and were under way at 7:30 sharp on Dick Adcock's LCPR boat which, we learned, is the greatest of boats for diving. After a two-hour ride we stopped at the pearl beds. La Paz was once famous for the mother-of-pearl industry. We moved on to our first diving area of the trip in 40 feet of crystal clear water with thousands of fish and marine life of all sizes. After weighting ourselves . . . Jim with his Rolleimarin, Mel with a Rollei in a plastic housing, and Dick Strong with a Bell & Howell 70 DR in a newly made plastic housing . . . we spent a half hour exploring and photographing everything in sight. Mel Rose was really infatuated with the water; this was his first open sea diving experience. Jim and Dick were amazed at the amount of marine life and the variety. We finished our film and returned to the boat to reload cameras. Dick decided to work on a little surface film to tie in all activities that happened on the boat. Mel and Jim went back into the water to shoot more film.

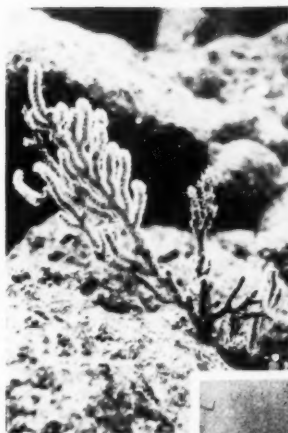
After re-entering the water Mel and Jim were swimming along the reef when Mel looked up and saw an eight foot Mako shark coming straight at him. This was slightly disconcerting to Mel who was seeing his first shark . . . alive, that is. Although Mel had his camera set for three feet, he got a good

(Continued on page 58)

Sun starfish moving over a coral boulder.



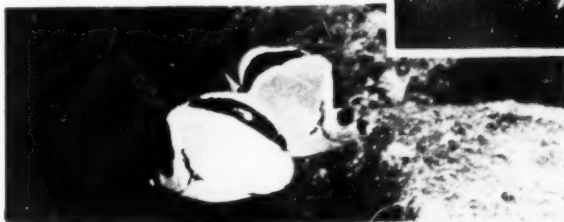
On the first day out the photographers found this Sea Whip Gorgonia Coral.



Close-up of one of their jellyfish friends.



Butterfly Fish at a traffic signal.

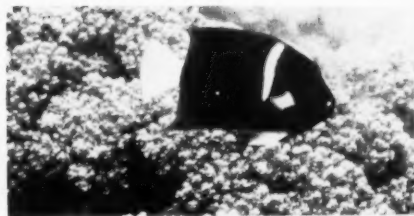


Pittsburgh was never like this. A herd of sea lions buzzes the divers.



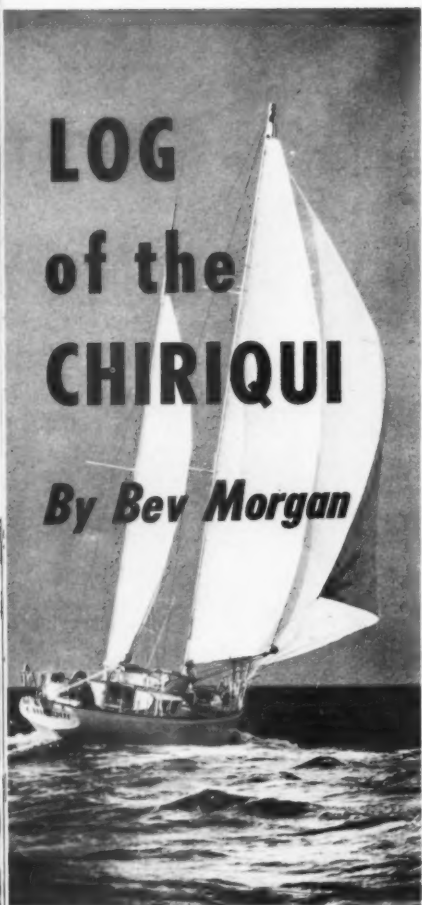
Mel Rose closes in on a school of reef fish with his camera.

The Angel Fish couldn't be disturbed by the camera.



LOG of the CHIRIQUI

By Bev Morgan



The story thus far: Five divers aboard the racing yacht "Chiriqui" have seen many of the interesting islands in the Southeast Pacific Ocean, and are traveling West after visiting Easter and Pitcairn Islands. Last month, on Pitcairn Island, Morgan received several spines in his foot from a strange starfish and is now unable to dive.

"MINERVA REEF"

MY FOOT and leg were becoming red and swollen. Ramsey Parks kept giving me injections of penicillin, but I felt miserable. Jack Russel kept telling

me it was all in my head, pointing out that he had more sea urchin spines in his foot than bones. I told him that these spines from the starfish were different, but to no avail. All of the crew offered to operate, (we had a shiny bunch of surgical tools aboard) but I refused permission.

Skipper Plazi Miller became more active about the navigational table. In the evening, after several star shots and a few minutes of plotting, we knew that we were in the area of the lost reef. The navigation directions for the South Pacific lists Minerva Reef as "position doubtful" and goes on to say that an English sailing ship was believed lost on the reef several hundreds years ago. Three ships reported they had seen breakers in the area, but the last report was in 1930's.

Our interest in the reef became aroused after hearing of the good fortune of a German ship at the turn of the century. It seems that a German pearler, having aboard divers from Mangareva, was in search of new pearling grounds when the lookout sighted breakers far out at sea. Nearing the surf, they discovered that it was a large reef, completely submerged. Heaving to, they lowered away a boat and sent a diver to investigate the bottom, which, at its shallowest point, was thirty feet deep. The diver returned to the surface with a huge pearl oyster, shouting that the coral was covered with shell. The Captain put a full-scale diving operation to work, and several weeks later departed some half million dollars richer. Now this was when shell was valued at ten cents per pounds. With pearl shell selling for as high as two dollars per pound now, you can easily see why we were interested. Add to this the fact that the reef has been untouched for some fifty or sixty years (exact position was next to impossible at the turn of the century, so the location of the reef was lost) and we were already counting our money—if we could find the reef.

"Today we should sight it, if we do at all," said the skipper in the morning. The wind was light, the sea smooth. A long swell rolled from the South as we powered through the day. We had a man in the rigging and one on the bow. The fathometer searched for a bottom, but nothing appeared. All through the day we kept a vigil. By three p.m. we were discouraged, but keeping our eyes open. The man in the rigging had come down, and our only watch was on the bow. Ramsey came back from the bow, "Morgan, I think the waves are steepening off there to the north. What do you think?"

Ramsey took the wheel, while I went forward. Yes, it did look like it. This meant that the waves might be shoaling

on a reef. I returned to the wheel, and we changed course toward the shoaling. From the doghouse came a shout, "Bottom! Hey, the fathometer shows a bottom!" We watched as the scribe traced the rising floor of the sea. On deck I could see the color of the water change from the deep blue to lighter shades of blue and green. Now we could see an occasional breaking wave on the reef. We had found it! Hell, we were millionaires—"Think of all that cash, men! Yahooooo!"

I hobbled about preparing the gear for Ramsey and Plazi, cursing my bum foot that kept me from diving. Soon we had the rubber life raft in the water, and the Chiriqui's anchor was secure in the coral of Minerva Reef. Due to the heavy swell, it was necessary to keep running up on the anchor chain to prevent jerking the chain taut with the possibility of damaging the boat. The divers were to swim down the anchor chain, never straying far, in the event a strong drift came up, so they could return safely to the Chiriqui. Ramsey and Plazi slipped into the water. There was very little drift, so they started down. Down, down, the bottom seemed to be moving away from them. Instead of being fifty feet deep it was closer to one hundred and fifty. Visibility was about three hundred horizontal feet. The divers quickly swam up to the shallower section of the reef to avoid decompression problems. They searched but no shell was seen. Plazi had been in the pearling grounds before and knew what to look for, but he could not find the oysters.

On the surface, we ran the boat ahead on the chain and waited. I worried about the dive out here in mid-ocean. What if the current should sweep them away? What if they got into trouble with sharks? And was there any shell here? Finally, I could see them coming up the anchor chain. They quietly got into the rubber raft, then onto the Chiriqui. The empty sack and their glum faces told the story: no shell. We secured the operation, pulled the hook, and set sail for Mangareva. When the sails were trimmed, the Chiriqui slid along with only the bow wave and the light flutter of the mainsail breaking the silence. Then Jack Russel came up from the main salon carrying a jug of rum, "What the hell do we care!"

"I didn't want to be rich anyway," someone else added. We had a few drinks in the cockpit. I realized as I looked at the rest of the crew that it really didn't make much difference. We were doing what we wanted to do. A fine ship, good diving, another port over the horizon—"In three days we'll be in Mangareva, boys, after that, Tahiti!"

(Next month: "Journey's End")

Second article on

UNDERWATER RECREATION IN LOS ANGELES COUNTY



First Technical Advisory Committee for Underwater Recreation in Los Angeles County.
Homer Lockwood Photo.

SYNOPSIS: The last article related the inception of the Underwater Recreation program idea in the Department of Parks & Recreation of Los Angeles County. The assignment of Bev Morgan from Aquatics Section and Al Tillman from the Sports Section lead to special training at Scripps Institute of Oceanography and the programming of the first public diving classes. Bev compiled the first UNDERWATER SAFETY manual which served as a pattern for the widely accepted UNDERWATER RECREATION now in use in training classes throughout the nation.

By AL TILLMAN

THE ascending popularity of underwater recreation in the summer of 1954 was stimulating justification for the support the Recreation Administrators had invested in a skin diving program. The thirty-six or so classes held during the warm summer months had helped train some 600 adult skin and scuba divers. Everyone was well satisfied that the department had hitched itself to a bright, young, promising program—which was a stunning blow was struck!

Governmental employees operate under a rather complicated but reportedly effective system called Civil Service. This system controls the employment of individuals and insures their skill, knowledge and health for a specific job. Sometimes they make errors, which was the case when Bev Morgan took his rigid physical for lifeguarding. Unfortunately, the same medical staff gave the physical examination which was taken by Morgan and Tillman before attending the Scripps training program. Bev's

eyesight was just below the requirements and Civil Service was forced to terminate his permanent employment.

A period of limbo ensued with the tragic loss of Bev Morgan who was destined to be one of the dynamic leaders in the field of diving. The department let the underwater program rest without assigning anyone new to direct and develop its progress. This state of affairs existed through the fall and early winter period. Al Tillman then requested the placement of the responsibility for Underwater Recreation under the Sports Section of which he was then the director.

The assignment was made as requested and Bill Starr was employed to help coordinate the program. Mr. Starr, an educator working in an administrative capacity with the Board of Education was an exceptional organizer and highly skilled diver. The program moved into high gear with the Spring season pressing and the department wholeheartedly in support of the new operational staff.

Tillman and Starr pitched in evenings and weekends to edit new developments into the department's training manual which then became the *Underwater Recreation Manual*. The phenomenal demands for instruction flooded the county switchboards during this time and it became obvious to all concerned that the necessary training classes could not be handled by the small staff of department employees. Because of this, the idea of certifying instructors became a moving issue.

Starr and Tillman mapped out a curriculum for a certification program, but acceptance of such a program was a real problem. Many agencies were

struggling for recognition in this growing field of diving and all were suspicious of any new movement in the field. A point of authority was necessary and it could only be established by drawing together the various leaders as an advisory committee.

The trouble with the idea was how these leaders were to be determined. The method Starr and Tillman used was a straw vote procedure whereby every recognizable diving personage was polled as to his recommendations for representatives of various aspects of diving. The fields and the final selections of representatives were as follows: Water Safety, Herb Barthels and Roger Plaisted of the American Red Cross; Organized Diving, Homer Lockwood; Competitive Diving, Ralph Davis; Scuba Equipment, E. R. Cross; Education, Dr. Feron Losee; Oceanography, Conrad Limbaugh; Skin Diving, Fred Schwankowsky; Recreation, Charles Bolinger; Medical, Dr. Robert Livingston and Dr. William Burns; Aquatics, Captain Lawrence Williams.

This Technical Advisory Committee met in January of 1955 at the Marineland of the Pacific Restaurant. Starr and Tillman presented the proposed certification program for an instructor's course and general public courses. The group responded as the individuals they are and many alterations and adjustments ensued. Out of that first meeting, a scarred but formidable program plan arose.

The Los Angeles County program then moved into high gear, and in the next article you will read how the first instructor's course developed and spilled out the pioneer group of twenty ambitious underwater instructors. ➤

LIFE OR DEATH IN SIXTY SECONDS

RESUSCITATION of the near-dead poses a dilemma that has challenged man throughout the ages. It confronts the laity as well as the medical profession and has stimulated proposals for an interesting assortment of methods for manual artificial respiration. Time is of prime importance in respiratory emergencies. Seconds count! Accordingly, the manual methods retain the important position as the first crucial link between life and death during resuscitative crises.

Recently I had the opportunity to examine and thoroughly demonstrate an amazing new manual mechanical resuscitative device. I want to pass on this valuable information to those who are interested in water safety. This revolutionary new product is manufactured by Globe Industries, and referred to as the Globe Mouth-to-Mask Resuscitator. This new resuscitation device will be a god-send to swimmers, skin divers, and lifesavers who realize that in a drowning, death is but seconds away, and that many lives are lost because of slow and inadequate types of artificial respiration.

However, let us drift back about three thousand years and see when the first account of artificial respiration was recorded. According to the Old Testament, II Kings, Chapter IV, verses 32-37, a prophet named Elisha revived a

small boy with mouth to mouth resuscitation. In the early ages, the Flagellation Method was used, whipping with stinging nettles, later supplemented by striking the skin surface with the hands and wet cloths. In 1530, Paracelsus, was the first to use the common fireside bellows to introduce air into the lungs. Adaptations of this were used throughout Europe for the next three hundred years. Then in 1700, the Inversion Method was tried, where the victim was hung by his ankles, pressure was applied over the chest to aid in expelling the air, and inspiration resulted when pressure was removed. Better types of resuscitation were being desired and in 1831 the Dalrymple Method was introduced. Swathes of cloths encircled the chest, forcing air from the lungs. Release of the pull permitted the victim's chest to expand. By 1886, J. B. Francis, introduced his method of raising and lowering the victim at the waist by means of a pole or board. Hyperexten-

sion of the victim induced inspiration and expiration resulted from lowering the victim to the ground. As you can see by these above examples, they required usually two or more persons and often did great bodily harm to the subject.

At the turn of the 20th century a more efficient type of resuscitation was desired with less chance of bodily injury. Due to these requirements the Shafer Prone Pressure Method resulted. This method has been widely used because of its ease in teaching and application. The victim is placed in a prone position, the operator kneels astride the patient's legs; he then leans forward applying gradual pressure downward, causing expiration. Passive inspiration occurs with the release. Though efficient as the Shafer Method had been, doctors and lifesavers were still not satisfied, so in 1932 the Holger-Nielson Method was discovered. This type of resuscitation had been very successful in the Scandinavian countries many years before introduction into this country and it is still in use here to the present day.

Doctors who have been doing research and experiments for the past nine years are now saying that no one method of manual artificial resuscitation has all the advantages which might be desired. However, the advantage of mouth-to-mouth insufflation exceeds the disadvantage because mouth-to-mouth breathing is unequivocally superior to all manual resuscitation methods in insuring adequacy of pulmonary ventilation. Mouth-to-mouth resuscitation was the first method to be used and now proven to be the most efficient, but due to public opinion it has been branded as unsanitary and immoral.

With such a contrast between slow and inefficient types of artificial resuscitation as compared to mouth-to-mouth methods, it is evident why I so strongly



G. K. Biel photo

By
D. R. Tussey

advocate the Globe Mouth-to-Mask Resuscitator. Here are all the advantages, without the disadvantages of actual intimate contact. The operator never inhales the victim's used air due to the fact that it is diverted to the outside by way of a unique diaphragm design.

The Globe Mouth-to-Mask Resuscitator is not limited to any one area or position; it can be properly used to revive a victim while in a small boat, stretched across a paddle board, or suspended by an innertube; and also at any time when the victim has been severely injured and cannot be moved. With other types of resuscitation the proper ventilation cannot be obtained under these circumstances. The rhythm of breathing is an important factor in reviving a victim of near drowning or asphyxia. How can this rhythm be maintained perfectly with operators changing several times an hour? On the other hand an operator with a Globe Mouth-to-Mask Resuscitator can revive a victim alone and never be tired or forced to give up due to exhaustion.

Now that we have seen why the mouth-to-mask resuscitator is an important revolution, let us see how to operate it.

1. Place patient on his back with a folded blanket, jacket or anything bulky beneath the shoulders. This causes the head to hang back so that the windpipe is drawn out straight making sure that the flow of air is entering the lungs.
2. Sweep your finger through the victim's mouth and remove foreign matter which might be present.
3. Quickly place face piece to cover victim's nose and mouth. Maintain airtight fit between cushion and the face. Use both thumbs to hold face piece in place and the middle fingers of each hand to lift lower jaw from below or beneath.
4. Now forcibly exhale into the mouthpiece. Watch the patient to make sure that the flow is entering his lungs and forcing his chest to rise.
5. Then inhale by mouth, through the mouthpiece. Use a normal rate of twelve to twenty cycles per minute.

What more wonderful, efficient and uncomplicated method of resuscitation could possibly be employed to revive victims of the near dead?

I sincerely hope that everyone of you interested in lifesaving and water safety will share my enthusiasm toward this wonderful advancement in artificial respiration. I trust that every skin diving club and swimming establishment will soon want to see and demonstrate the mouth-to-mask resuscitator and keep one on hand as an added insurance in water safety.

THE CASE OF THE

LOST WRECK

By Raymond F. Fischer
Orangevale, California

THE LIGHTS were dimmed and the projector was whirring as Don Coleman was showing movies to members of the Sacramento Kelp Klippers. The reel of film in color was of the usual scenes to be expected of almost any dive. You know, scenes of divers all loaded down with gear and working their way down the cliff, fighting their way into the rubber exposure suits, then riding off into the water from the rocks on the wash back of a wave.

The scene changed to the divers returning to shore and starting to empty the sacks fastened on the floats.

"Now watch," said Don, his voice growing excited, "look at the size of those ling cod and red snapper. See, almost as long as my spear gun! Beauties, aren't they?"

We were interested in why Don and Roy Skinner should get such nice fish, and the other divers the usual run of smaller ones. Under continued questioning Don finally told us the story of how he and Roy were buddies, how they swam out beyond the other divers in the party and found an old shipwreck. The wreck was all broken up and hardly recognizable as a ship but some of the iron plates were scattered on the rocks and the big ling were under the plates.

Now that Don and Roy's secret was known, we made them promise to take us to the wreck if they could find it again.

"Sure," said Don, "I know just where it is. You remember that rock sticking out of the water about two hundred yards off Bolinas Point? Well, the wreck is about 150 feet due south of that rock."

"Oh, no," interrupted Roy, "it was at least 500 feet, and wasn't it more west than south?"

It was a nice day. The sun was bright, the ocean calm and visibility in the water was perhaps 30 to 40 feet. We had selected an ideal day to dive on the old wreck and pick off some of those nice fish under the plates. We took the usual run of pictures of working our way down the cliff with diving gear, and got some good pictures of the women bravely seeing to it that the picnic baskets and drinks got down to the water's edge without mishap.

"Gosh, I just don't know," said Don, "I sure feel bad about talking the whole club into coming down here, and after swimming around out there all day long then not being able to find the wreck. Gee whiz, fellows, last month when Roy and I were here the wreck was right out there."

"Maybe," asked Don, "maybe the storm last week washed the plates off the reef into deep water?"

"Sure, sure," was our reply.

"The wreck has been in one spot for 50 years without budging and now a little storm last week washes it out to sea! And not only that, Don, you promised us big fish on this trip and just look at these dinky little things."

It was the regular monthly meeting of the Sacramento Kelp Klippers. The lights were once again dimmed and the projector was whirring once more as Bill Burger was showing the usual run of pictures of divers working down the cliff, struggling into exposure suits, and of Charlie Mraz and Dale Stennett riding the wash back of a wave into the ocean. The scene changed to the divers returning to shore and pulling some BIG ling cod from the sacks.

"I take great pleasure," said Bill, "in announcing that Don Coleman's famous lost wreck has, at last, been found. We swam out beyond the rock off Bolinas Point, and on my second exploratory dive I dropped down right on top of it. Not only did we find the wreck but I found the ship's bell. There it is on the table, notice the inscription:

FRANCOIS COPPEE

1900

MANTES

"There is a good-sized anchor," continued Bill, "on the wreck. Maybe the club should get a boat, some ropes and tools, and go back and salvage it and fasten it on the walls to help decorate our clubroom."

We were getting all fired up again in anticipation of another trip to the ocean, but one of the fellows was a little skeptical as to whether the wreck could be found again.

"Sure," said Bill, "I know just where it is. It is about 200 feet west of the rock."

"Oh, no!", protested Charlie, "it was about 600 feet and wasn't it more south than west?"



Morrison Springs near Ponce de Leon, Florida — diving depth to date is 290 feet.

DEATH TAKES A DIVER

MORRISON SPRINGS BODY RECOVERY

By EUGENE VEZZANI

PHOTOS BY W. H. SCHULTZ

Recovery team leader Jack Favor entering the deepest part of the underwater cavern at 100 feet. This narrow opening is a tight squeeze for a diver and his equipment.



GEORGIA State Skin Diving Association Diver and Director of Underwater Safety, Jack E. Favor, of Atlanta, Georgia, led an expedition of six expert divers in the recovery of a drowned body.

Walt Fleming of Georgia Tech accompanied Favor to a depth of 240 feet at which point they spotted the body, a victim of a skin diving accident, after almost twenty minutes of search through the countless maze of subterranean corridors and tunnels that comprise Morrison Springs underwater caverns near Ponce de Leon, Florida.

Mr. Favor, who holds the world underwater cave diving record of 290 feet, was appealed to by the managers of the Springs after two futile attempts over a period of one week.

Mr. Favor quickly assembled his team of diving experts composed of Walt Fleming, Gene Vezzani, George Krasle, Chris Christiansen and Jerry Carson, all of Atlanta, Georgia; and Serge A. Birn of Louisville, Kentucky.

The victim entered the caves Saturday, August 30, 1958, with two com-

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Recovery Team mem-
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Krasle, Judge Davis,
Sheriff Miller, Chris-
tiansen and (front,
left to right) Favor,
Fleming, Vezzani.



panions who were to accompany him only to the 180-foot level. From that point, the diver proceeded alone—apparently without depth gauge, watch or diving buddy. He, reportedly, had made a previous dive to 240 feet, and it was reported that this fatal dive had been planned as an attempt to better Jack Favor's world record of 290 feet.

Over 2,000 anxious and spellbound spectators watched as Favor and Fleming, followed by their team of safety men, entered the water to begin their search.

George Krasle, Jerry Carson, Chris Christiansen and Gene Vezzani proceeded to the prearranged tasks of placing the diving tanks at pre-selected spots for safety and decompression use.

Favor and Fleming then began their difficult and hazardous dive in search of the drowned airman.

Down they proceeded through a short chimney, and thence swam through the jagged opening at 70 feet and into the first cave. At the bottom of this cave, they removed their tanks and with close teamwork, helped each other through the very small passageway into the second underwater cavern. This room extends from the 100-foot level down to 180 feet. At this point, the recovery team of Favor and Fleming, having re-strapped their multiple tank blocks, crawled under a low ledge and entered the third subterranean room.

It was on the sandy bottom of this room, lying at 240 feet, that they found the sprawled body of the victim. He had jettisoned his weight belt and his underwater light was not seen by Favor or Fleming. They further reported that while the effects of nitrogen narcosis were severe at 240 feet, the shock upon seeing the body and the importance of the terrible task confronting them kept their minds relatively clear!

At great risk of overexertion, they then swam upwards and carefully guided their grim cargo under the 180-

foot ledge. From this point on, the body was noticeably buoyant as Favor and Fleming worked their way upwards. They found a suitable location at 110 feet and while Fleming held the victim in position, Favor drew his knife and cut the straps, releasing the tanks and regulator so that the body could be passed through the small opening and into the first cave.

The body cleared the small opening without incident and was taken to the surface by the safety team. Favor and Fleming again removed their near-empty tanks, and pushing them ahead, allowed the current to whisk them out into the first cave. The ascent from 100 feet to their 20-foot decompression stop was quickly accomplished, and after twenty minutes they came up to 10 feet for forty minutes; and, finally, their ordeal was over!

On his preliminary report to the authorities on the facts surrounding the death, Favor stated that "The cause of the accident was, in all probability, not as a result of equipment failure. Rather, it was due to the tragic lack of proper diving techniques. This is evidenced, in part, by the fact that the diver wore no depth gauge or knife, and was not accompanied by another diver, as is the rule among experienced divers. The regulator used was very old and in bad need of repair."

Master Diver Frank De Catarina, Chief of the Naval Diving School of Panama City, Florida, expressed amazement at the efficiency of the recovery team and the courageous efforts of Favor and Fleming in what is the deepest body recovery on record in any underwater cavern.

It is ironic to note that Favor, Fleming and Vezzani, on the following day, when photographing the underwater caverns for a scientific publication, nearly met their deaths when a cave-in almost closed off their exit passage at 100 feet below the surface!



DINING FOR DIVERS

by Allan Petri

In the last article we covered some of the basic ways to fry fish. This month we are going to deal with baking and braising fish. These two methods are usually applied only to larger fish that are to be cooked whole. You can bake them in the skins after carefully scaling them, or you can skin them and bake just the meat. You can bake fish on the beach as easily as at home. All you need is a ten-gallon can that has been opened on one side to form a reflector oven, and you are in business. Baking does much for fish, particularly the more delicately flavored fish. It has the advantage of allowing you to serve your fish in the cooking dish. Here is how I do it.

Rub the cleaned scaled fish with seasoned flour. I use a little salt and freshly ground pepper to season the flour. Slash the skin with a very sharp knife about every one and a half inches. Heat about a quarter of an inch of olive oil in the baking dish in a hot oven or reflector oven. At 400 to 450 degrees is the right range. Place the fish in the dish and bake it at this heat for ten to thirty minutes, depending on the size of the fish. It should be basted frequently with the oil as it bakes. Serve it with a good mustard sauce and decorate the dish with small red beets and fresh parsley.

In braising fish, the head and tail are usually removed. It isn't necessary in baking. In your baking dish, place a chopped onion, a sliced carrot, a half dozen chopped mushrooms, a pinch of oregano, a cup of clam juice, and half a cup of white wine. Place the fish on top of the vegetables and bake it for 30 to 60 minutes, depending again on its size. Remove the fish to your serving platter and skin it. Keep it warm and boil off about half of the liquid remaining in the baking dish. Add a little cream sauce to thicken what is left and strain the sauce over the fish. Decorate the plate with parsley and some vegetable that offers color contrast.

As we mentioned on frying fish, the most important step in serving is the garnish. If the fish is white, use fresh green parsley liberally and a red vegetable. This contrast will give the necessary eye appeal.

Again, if you have any questions, send them in and we'll do our best to give you the answers.

OSLO UNDERVANNSKLUBB

By JEAN MICHELET

Norwegian diving club members at one of their regular dives.

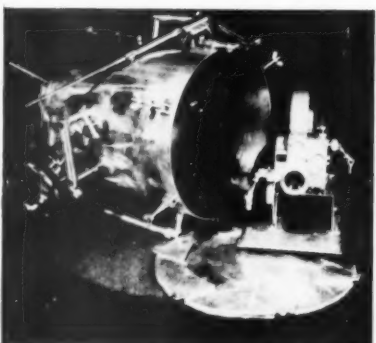


I DON'T know what picture the word Norway conjures up in your minds, but it will certainly not be underwater activities first. Perhaps you imagine a country of eternal snow and ice, fishermen and skiers. This picture is right as long as the country is covered by winter's grip.

If you will look at a map of Norway, I will try to tell you what our country is like in the summer. If you follow the coastline with all its bays and islands with steep cliffs, you can see that we have a readily available diving area. The coastline is in fact as long as the Equator. If you have seen the films



Ole Kaarby prepares his 16mm Pathe camera and blimp. Below is a closeup of the underwater camera and on top of the housing is a self-made harpoon gun.



"Windjammer" or "The Vikings" you will have an idea of how it is above water here. Underwater we offer a visibility from 10 to 20 and sometimes even 30 meters (approx. 100 ft.). The temperature varies between 12-20° C. (53-68° F.) all along the coast, even north of the polar circle, because of the Gulf Stream. In the north it is possible to dive day and night. Diving near Drammen and Fredrikstad isn't too good because of poor visibility from the rivers. Another fact that makes our diving conditions good is the almost constant tide. The difference between high and low tides is only 1/2 to 2 meters (approx. 19"-6 1/2").

The vegetation, especially in the far north, is very plentiful and may be compared with Californian waters, fish are plentiful, in many varieties, and unaware of the underwater hunters. One can meet large schools of cod, coalfish, or the larger halibuts of several hundred kilos. Along the coastline, richly studded with islands between Tonsberg and Kristiansand, are hidden numerous wrecks from the wars of the 18th century.

Our club, Oslo Underwater Club (O.U.K.) was started in 1951 as the first diving club in Norway by Tom and Per Gulbrandsen and Lasse Berglind. Up until 1956 the O.U.K. was the only official club. Now there are five or six clubs in Oslo alone and a national organization started in 1957. Our club membership is limited to 20 members. Almost all the members have taken up underwater photography and built their own underwater cases for stills and movies. Our latest pride is the "Blimp," a movie camera case built by Ole Kaarby. We took our first underwater films in 1953.

Another group within the club specializes in archeology and is about to

form a Norwegian Underwater Archeological Society under the direction of Mr. Molaug, Director of the Museum of Shipping, and other archeologists. The idea for the Society was developed when some of the club members discovered the remains of the old frigate *Najaden* which sank off Lyngor in 1812. Artifacts of the ancient vessel were taken to the Museum of Shipping and the expedition was filmed underwater. Those in the club interested in archeology will follow a course in the preparation of archeological finds underwater.

The present chairman of the club, Lasse Berglind, cooperated with Ove Lund of the Navy and has continued to experiment with mixed gas (air and oxygen). The apparatus has great possibilities, but requires some mathematical calculations both before and during diving.

One of the most ardent wishes of the club was fulfilled when Arne and Kalle Andreassen built the club's first mobile compressor with a capacity of two seven liter bottles up to 200 atmospheres in 10 minutes' time.

Our favorite diving spot is Verdens Ende on Tjome Island, about two hours from Oslo. Off the rocky coast we drop to an underwater ledge about 20-30 meters (100 ft.). On the slopes are many kinds of fish and at the bottom are flatfish, eel, and lobsters. Also we can investigate some wrecks from the last war. The club usually plans to dive there over Easter and Whitsun. The traditional Christmas dive is made in the Oslo basin in rather severe frost and snow, but at this time of the year the water at Oslo is clear.

All through the winter the club trains in indoor swimming pools in Oslo and plans the summer expeditions. Anyone interested in our diving, can write me at Frognervcien 2, Oslo, Norway.

GILL FAURE

UNDERWATER ARCHEOLOGIST

Gill Faure is a woman with so many facets to her personality that it's hard to pin her down to one. In the course of her rich, varied, adventurous life she has been successfully a mountain climber, a skier, a ballet dancer, a writer and a scholar. But she likes to be known best of all as an underwater archeologist, a title held by few women.

Mademoiselle Faure is a blonde, robust, pony-tailed, husky-voiced French woman and her underwater search of the past has taken her all over the Atlantic ocean, the Mediterranean and the Caribbean.

Her underwater career was considerably enlarged when she got a job with the Museum of Archeology in Marseille where she worked classifying, sorting and cataloging sunken treasures she found while diving off the coast. Two thousand years ago Marseille was a Greek colony and most of its supplies came from the motherland. Gill and other diving archeology scientists have found some priceless Greek and Phoenician treasures during their explorations there.

With Marseille as headquarters, Mlle. Faure has traveled extensively, making many trips to the United States lecturing, showing slides and diving everywhere she goes. One of her most interesting jobs out of the water was the preservation and conservation of different woods from sunken boats. This work was done at the University Museum of Philadelphia and the Museum of Archeology in Marseille. While she was with the recent Guanahani Expedition in the region of the Balearic Islands they dived on over 200 Greek wrecks. Boat loads of tin and lead that were going between England, Spain and the islands during the time of 50-100-200 B. C. sank, sometimes one on top of another. The Expedition also dived on the underwater petrified forest near Gibraltar and the colony of Greek temples off North Africa.

Her current diving activities include research and training with the Navy in Key West and prospecting in the fabled city of Port Royal for Henry Morgan's sunken house. This research will be for the University Museum of Philadelphia. Later she will return to the U.S. for national television programs and a continuation of her seasonal lecture program.

Our hats are off to this international underwater lady, who in her line of work is promoting free diving . . . not for sunken wrecks and pirating . . . but as a sport and a science.



Mlle. Faure working at 120 feet on Greek amphorae. Location is near St. Raphael in the South of France. Robert Diot Photo.



Iberian Amphora discovered by Gill Faure during the Guanahani Expedition.



Clay dish from a Corinthian wreck. Serge de Sazo Photo.

ILLINI Y. M. C. A. SKIN & SCUBA DIVING MEET

On September 16, 1958, the first annual YMCA outdoor skin and scuba diving meet was held at College Camp at Lake Geneva, Wis. Eight YMCA's participated in this tournament which was won by the Harvey YMCA. The Harvey team won three first places and one third place out of five events, with Park Ridge finishing second and West Suburban finishing third.

The five events that were held were as follows: Skin and Scuba Retrieve, the skin diver swims out a specified distance and dives 20 feet and the scuba diver swims out a specified distance and dives



Harvey Y Championship team.

40 feet to pick up yellow discs and return to the finish line; Aquathon, a race of 150 yards with mask, fins, and snorkel without the hands; Exchange of Air Race, two divers use one tank and exchange air approximately every three breaths for 75 yards; Tug-O-War, performed in 8-10 feet of water; Compass Race, you take a bearing on your target and swim under water to it by use of your compass.



NORTHWEST TREASURE HUNT

By JEAN MACDONALD

Photos by Kirby Macdonald

ONE-HUNDRED and eighty neoprene-covered divers lined the southern Puget Sound shore. The first annual Northwest Treasure Dive began with a pistol volley that even the hooded divers could hear. Snorkels wiggled into place, and the divers walked backwards into the water.

This sunny March Sunday was the culmination of six months of planning. In October of 1958, the 22 members of Tacoma Scubaneers, Tacoma, Washington, chose Jim Brown, secretary of Washington Council of Skin Diving Clubs, as chairman. Most of the planning centered on a date, a place, participants, and prizes. The details to be taken care of were innumerable; but by February everything seemed to fall into place, and the Scubaneers were actually looking forward to the day.

They chose March 22nd for the hunt, as the tide tables showed a light tide on that day. Clubs in Washington, Oregon, Northern California, Canada, and British Columbia were immediately notified of the event. As more definite plans were made, further information was mailed to the clubs, including a three-page publicity pamphlet the club had printed.

The City Park Board gave them an "okay" on their first choice of sites—Point Defiance Beach, a huge natural beach equipped with tables, covered picnic sites with stoves, a concession stand that would be open for the day, and parking for hundreds of cars.

Every treasure hunt needs a treasure, and the members looked to the merchants of Tacoma. The merchants were very cooperative: 50 prizes were offered to the visiting divers. The prizes lured 180 divers to register and included regular and slalom water skis, an outboard motor, a regulator, underwater watch, lounging chair, electric coffee percolator,

shaver, speargun, fins, masks, a raft, and three bottles of perfumed bubble bath. Only one prize could be won by each diver, although he could also take home a trophy or the treasure chest. Two trophies were ordered; one for the diver who found the largest marine specimen, the other for the diver who traveled the farthest to the hunt. A treasure chest, resembling an old lunch box, contained 20 silver dollars for one lucky diver.

The project was gathering momentum and more detailed plans were made. Jay Dorsey located and would install the public address system; David Jeffers planned the registration forms and had them mimeographed; Leo Choinard would make free clam chowder and coffee for the divers on the day of the hunt; Marvin Thompson designed a publicity pamphlet; Jack Watson planned visits to local radio and television stations; Dick Were mapped a diving area, and Jack Watson was in charge of Divers' Flags and buoys and visiting the local outboard club for patrol boats. With everyone trying to get the floor at bi-monthly meetings, President Ray Herbig was busy keeping order. Past President Kirby Macdonald volunteered to take pictures the day of the dive.

A local brewery made 50 beer cans, both ends intact, with a slot on top. Metal disks were printed with numbers one through 50 and dropped into each can. Salt waterproof tape was placed over the slot. The divers would hunt for these half-buried cans and redeem them for the prizes.

The day before the Treasure Hunt, 10 Scubaneers hunted octopi and other large marine specimens. To make sure the diving area contained marine specimens worthy of a trophy, the octopi were planted on the floor of the bay for the divers to find.

At 6:30 on the morning of the hunt, the 50 beer cans were buried and the marine specimens were placed in the diving area. Water in each can kept it half buried in the sand. The diving area, 75 yards by 300 yards along the shore, was framed with 16 Divers' Flags, which were weighted down with floats. Enough slack had to be given the lines to allow for the light tide.

On the beach a flatbed truck was driven into place for displaying of the prizes and trophies. The stoves were started for coffee and chowder. Scubaneers were nailing up signs directing visitors to the beach. Three picnic tables were placed upon a raised stand for registration. While Jay set up the public address system, Marvin Thompson sectioned off a chalkboard for registering of disks as divers brought in beer cans.



The first diving event, free diving, was scheduled for 11 a.m. and registration at 10. As divers arrived, registration was announced over the loud speaker. Four wives of Scubaneers registered the divers. Besides his name, club affiliation, and home address, each man was asked to give the name of a person to be notified in case of accident and to sign the form which stated that Tacoma Scubaneers would not be held responsible for any accident occurring during the hunt. Two rowboats with

Scubaneers patrolled the diving area during the dives, but there were no accidents or injuries sustained, although one out-of-breath diver was brought in during the free diving event. A doctor was on call for the day.

By 11 a.m., 180 divers were registered. With a fee of two dollars each, the club netted 360 dollars minus expenses. Although some of the divers did not belong to clubs, 24 clubs were represented. No Scubaneers were allowed to take part in the hunt. Clubs entered were as follows:

- Norwest Divers of Seattle
- King County Sheriff Divers of Seattle
- Dolphins of Olympia
- Y-Divers of Seattle
- Puget Sound Mudsharks of Seattle
- Everett Sounders of Everett
- Port Angeles Nemgorfs of Port Angeles
- Boeing Sea Horses of Seattle
- N.U. Divers of Seattle
- Nurfs of Seattle
- Knights of Neptune of Seattle
- Vancouver Sub-Aquatics of Vancouver, B. C.
- YMCA Divers of Flintwood
- Aqua Society of Port Moody, B. C.
- Olympic Lancers of Olympia
- Aquaticans of Olympia
- Knights Neptune of Portland, Oregon
- Oregon Skin Divers of Portland, Ore.
- Vancouver Skin Divers of New Westminster, B. C.
- Port Townsend Pile Divers of Port Townsend
- Freelancers of Olympia
- B. C. Sea Searchers of Vancouver, B. C.
- Burnaby Sub-Aquateers of Burnaby
- Sharks of North Vancouver, B. C.

The free diving event started at exactly 11 a.m. Master of Ceremonies Jack Watson called the divers to the microphone and told them the rules and showed them what they were looking for. After the divers lined up along

the shore, Jack fired the pistol. The free diving event, with snorkel and mask, lasted 45 minutes. As each diver found a can, he brought it to the chalkboard team. Fifty large squares were drawn on the board. As Scubaneer Dick Hilton opened each can, Dick Wene wrote the diver's name and home town into the square corresponding in number with the metal disk in the beer can. About one-third of the treasure cans were found during the free diving event.

The divers were called in at 11:45 and given 15 minutes to put on their gear. The scuba event ran from noon to 1 p.m.

As a diver's name was enrolled on the chalkboard, his registration form was removed from the pile. Four cans were not found, so a drawing was held from the remaining forms for the last four prizes. The prizes were awarded at 2 o'clock.

The microphone was placed on the flatbed truck, and Jack announced the winners. On each prize an envelope was taped. On the front of the envelope, the donor's name was typed. Jack read the name of the donating store and opened the envelope. A small piece of paper was enclosed with a number one through 50 typed on it. The number was called out. Even if the diver had forgotten the number of his disk or was not present, Jack could immediately announce the diver's name and home town from the chalkboard, which was also placed on the truck. Six women divers had registered, and one of them won the spear gun.

At this time the marine specimens were judged. The divers brought in sun stars, starfish, octopi, flounders, and sea cucumbers. Two octopi were the largest specimens, one at six feet and another at eight feet in diameter, the latter taking the trophy. A diver from

BOOK REVIEW

UNTERWASSER WELT

By HERMANN HEBERLEIN

Unterwasser Welt—Hermann Heberlein
B. E. A. Bucherdienst, Zurich, Switzerland. 222 pages. 1958.

This is the most magnificently illustrated book that has come to my attention, and is certainly worth owning for the pictures alone. The 99 photos include some of the best work of such experts as Rebikoff, Hans Hass, Heberlein, Limbaugh, and Piccard.

The text is written in a lucid, non-technical style for the youth or adult who wants an accurate introduction to the world underwater. It is not a scientific book or an encyclopedia. In easy reading style, the author treats such subjects as oceanography, history of diving, modern techniques, photography, dangers and diving diseases.

The book contains a sixteen-page bibliography on all phases of underwater activity.

Vancouver, British Columbia, received the trophy for traveling the longest distance. The treasure chest with the 20 silver dollars was found during the scuba event.

The Scubaneers were pleased to find the public so interested in skin diving. A representative from a local television station estimated the crowd at 3,000. The huge parking lot was completely filled with cars. As cars left, a policeman directed new arrivals into the vacated spots. As many of the visiting divers had long drives home, the crowd quickly thinned out after the prizes were presented.

A happy group of Scubaneers cleaned up the beach. An oft-heard comment from the divers had been, "We hope you make this an annual event." The weather had been perfect, and everything had gone right on schedule, so the visitors didn't have to spend any time waiting around as one often does at outdoor events. Instead of a chance for two or three trophies, the divers liked the idea of having 50 chances for valuable prizes plus trophies and a money chest.

The following week the Scubaneers saw their hunt on television and were already thinking of the 1960 Treasure Hunt, although they dislike seeing another set of beautiful prizes slip through their fingers.



Chairman of the Treasure Hunt, Jim Brown, gives greetings on the mike. The Wolf Eel, relative of the Moray and with a similar jaw structure, was caught (speared) by a Scubaneer and mounted.



Barracuda catch made by divers Alba, Bonck, Riviere and Muller in the area of the Scuba Tourney. Photo by Calvin Blackwell.



A typical oil platform and rig. Depth of water is approximately 100 feet. This rig is 22 miles south of Grand Isle.



Riviere with a huge black sea bass that was speared under oil platform near Grand Isle.

THE NEW ORLEANS — GRAND ISLE SCUBA DIVERS INTERNATIONAL TOURNAMENT

By Roland Riviere, Jr.

DIVERS from all parts of the United States, Canada, Central and South America and Europe are being invited to participate in the First International Scuba Diving Tournament at Grand Isle, Louisiana, August 11-13, 1959.

Invitations are being sent to members of scuba diving clubs throughout the world. Participation will be strictly on an individual basis, with no club membership entry requirements.

Grand Isle, Louisiana was selected as the site for the first truly international scuba competition because of its ideal diving conditions, the abundance of many species of record-size fish, and virtually unlimited diving facilities.

In addition, the island has long been identified with the lore of the famous pirate, Jean Lafitte. At one time, Grand Isle was the headquarters of this famous buccaneer and many of the native islanders are descendants of Lafitte's brigands.

Buried treasure? Honestly, no one knows, but the area is rich with legends and rumors of pirate gold and silver submerged in nearby waters.

Experienced scuba divers from many parts of the United States who have visited Grand Isle claim that the fishing is second to none. Among the many types of fish which may be taken at any time of the year are cobia, jewfish, mackerel, bluefish, barracuda, red snapper, sheepshead, spadefish, amberjack, Jack Crevalle, tripletail, shark, manta ray, black grouper, pompano, tarpon and many others. Five hundred pound jewfish, 30-pound Jack Crevalle, 30-pound snappers and large barracuda are everyday catches. Record-size fish abound.

More than 100 oil rigs offshore from Grand Isle in the Gulf of Mexico have created artificial reefs which attract millions of forage and game fish. In addition, there are many sunken ships which were torpedoed during World War II.

The water is clear and warm. Surface temperatures in August are 75-80 degrees—suits are not needed—and visibility is excellent. Arrangements have been made for an unlimited supply of air. There is no need to bring compressors unless you prefer to use your own.

Adequate boat facilities will be available. Grand Isle is the home of one of

the world's largest shrimping fleets. In addition, there are numerous charter fishing boats and many high speed "crew boats" which are used to transport workers to the offshore oil drilling rigs. All of these boats are readily adaptable for diving purposes and make excellent diving platforms.

In addition to trophies, there will be over \$15,000 in prizes, ranging from a sports car to a teflon washer. There will be first, second and third prizes for 15 classes of fish. Prizes will also be awarded in a special ladies' division. There will be additional prizes for the largest fish each day and a prize for the largest fish of the tournament. All entrants who submit a fish of any size will be eligible for the grand prize.

The tournament is open to every diver with a spirit of adventure and the desire to spear record fish and win valuable prizes.

Competitive amateur team divers are urged to clarify this type of competition with their Regional A. A. U. Director or Chairman before entering, to protect their amateur status.

Under the rules of the tournament, commercial sponsorship of individual divers is allowed. Perhaps your local sporting goods dealer will wish to sponsor or partially sponsor you in this, the "world series" of scuba diving.

The entry fee for the tournament is nominal.

Maximum safety precautions will be observed by the tournament safety committee and full emergency facilities will be maintained on the island, including a recompression chamber. Insurance is included in the registration fee.

Your group can obtain a 10-minute 16 mm sound film of scuba diving at Grand Isle by writing the New Orleans Grand Isle Scuba Divers International at P. O. Box 127, New Orleans, La. Order this film and see for yourself why Grand Isle is truly the scuba divers' paradise. Seeing is believing.

World-famed New Orleans with its historic French Quarter, jazz bands and internationally famous food is only two and one-half hours from Grand Isle by automobile. Bring the entire family. They will enjoy the many events on Grand Isle and after the tournament you can spend a few days in fabulous New Orleans.

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Gliding effortlessly through the azure blue of a Hawaiian lagoon, a native diver stalks his evening meal among the coral encrusted lava formations off the beautiful Kona coast.



MEDICINE UNDER PRESSURE

By Walter R. Kirker, M.D.

When Robert Boyle first described what he called "the springiness of air," I am sure that he had no idea how important this principle was to become to divers. He was the first person to record the fact that a constant temperature, over a given gas volume, is inversely proportional to the pressure exerted over it. That is to say that as the pressure over a container of gas increases, the volume of that gas decreases in a standard way, i. e. twice the pressure—one half the volume, three times the pressure—one third the volume, and so forth.

This Boyle's Law becomes important to us as divers in understanding the most common diving accident, squeeze, and also the most lethal and most feared of all diving accidents, air embolism. Boyle gave reason to the compressibility of a gas, which is a physical property of all gases. Realize now, that he didn't describe this phenomenon to occur with other matter, such as water, minerals,

etc., for these materials have very minute degrees of compressibility in relation to gas. This one fact is basically important to understand the primary effects of pressure on the body.

Our bodies are made up of mostly water (70%), and since we already know that water is not compressible, the pressure that is exerted on the body surface, as we descend underwater, is transmitted through to the air spaces (ears, sinuses, lungs, intestines) within our bodies. Yes, the pressure is carried through the skin, fat tissue, muscle, and bone to get to the gas within the anatomic air spaces, and here is where the pressure produces the well-known symptoms of squeeze. According to what structures surround these air spaces, do we have symptoms of squeeze. For example, the ear with a blocked Eustachian tube produces a closed air space and will give symptoms according to the air space's weakest wall (the ear drum). The skull sinus with unequalized external pressure will attempt to fill the space unoccupied by the decreasing volume of gas by enlarging the mucous membrane lining of the sinus, and eventual blood vessel rupture (thus the bloody nose after a sinus squeeze).

Remember now, pressure exerts its primary effect on the gas within the body spaces and not upon the actual tissue cells. The secondary effects of pressure upon the diver occur after the gas has been taken up by the blood stream. (Nitrogen narcosis, the bends, anoxia, etc.)

But let's get back to Boyle's Law and, specifically, mask squeeze. The mask on the face forms an air space (glass, side walls and face). As pressure is increased, the gas trapped within the mask will decrease in volume with inverse proportion. But that space still must be filled with something, so it draws on the most movable wall, the face. Thus the eyes and skin are pulled, and sometimes this suction force will rupture small blood vessels under the skin and produce temporary discoloration of the face. All this is easily averted by a gentle snort of air into the mask, to replenish the space left vacant by the compressed initial volume of gas in the mask.

Gas within the stomach and intestines is not troublesome because the walls of these structures expand and contract with its volume. *It is only when the gas is in a space with fixed walls that symptoms arise.*

I hope you now understand the basic principle of Boyle and how the compressibility of a gas produces its symptoms of squeeze. Air embolism may also be explained using this very same principle. See if you can figure it out before the next issue.

Editor's note: Although Dr. Kirker cannot answer letters individually, your medical problems related to diving will be discussed in future columns. Questions should be addressed to Dr. Kirker in care of *Skin Diver Magazine*.



Prize winning Cobia (ling) of the 1958 Rodeo is weighed in by diver Smith. Team mate Riviere looks on. The fish weighed 46 pounds which is a record for the Gulf waters.



Dixie Divers Club members Antonnini, Shoemaker and Callias weigh in their 39 pound Barracuda during the 1958 meet. This is another Gulf record to be beaten in the 1959 Rodeo. This fish won the Cuda Cup for the Dixie Divers.

GRAND ISLE TARPON RODEO

By Marcie Alba

The Gulf Coast's largest fishing rodeo is held annually for three days in July at Grand Isle, Louisiana. To the uninitiated, we can only say that until you have attended a Grand Isle Tarpon Rodeo you cannot possibly catch the enthusiasm and spirit of friendly competition that is displayed here. Average attendance is 2500 to 3000 people. There are 13 rod and reel categories and 6 skin diving classes. Several groups which had never been in the contest before for the coveted trophies turned out in such force this year that they tripled the number of registrants listed in former years.

The Gulf of Mexico off the coast of Louisiana is an oilman's paradise and a fisherman's dream. Hundreds of species of fish are available to the sportsman. Spanish Mackerel, Blue fish, Tarpon, Jew fish, Barracuda, Dolphin, Cobia, Red Snapper are only a few and recently a few Sailfish have been boated in our section. Grand Isle is a small island connected to the mainland by a small bridge. It is seven miles long and one-half mile wide. Primarily the townspeople support themselves by fishing and shrimping, renting charter boats for sport fishing, and other islanders are actively engaged with the various oil companies which have bases there.

The rodeo officially lasts from dawn Thursday till 6 P.M. Saturday. Many of the boats will travel twenty to thirty miles into the Gulf and must be prepared for everything.

Most of the divers have already charted their courses or at least have decided where they will head. Will it be Timbelier? There are many warsaw and grouper under those rigs. Caminada structures? The variety of fish there range from lavender "look-downs" to 600 lb. jewfish. Perhaps you will head for the Pelican Island rigs? These rigs are southwest from the Mississippi River Delta and are well known for the many fish large and small that can be found

1959 GRAND ISLE TARPON RODEO

The 1959 Grand Isle Tarpon Rodeo will again be open to skin divers again this year. This contest is held the third weekend in July. Southern States divers may obtain further information by writing to: Mrs. Marcie Alba, 1518 Ocean Dr., Metairie, La.

under the twenty to thirty rigs in that section. Or is your goal the Continental section? An average depth of 100 ft is found here and cuda, beau coup, as we say here. Rig #19 sits 19 miles due south of the sea buoy in the Channel, daring you to come and see what the day might bring. This rig and its nearby sister, the Rocket Launcher, range from 80 to 120 ft. Here is where you can see your first signs of coral growth on the oil rigs in addition to normal barnacle growth. Spiny sea urchins grasp tight their holds on cross beams and you pass them by below surface praying a jewfish doesn't drag you thru that mess!

For the larger boats you can count on an overnight trip to Humble 135 or the twin Gulf structures 130 and 131. Where? Forty to fifty miles in the Gulf you can see the Lykes Bros. and United Fruit as they glide through the shipping lanes in 140 ft. of water. This purple blue water is dotted with hundreds of barracuda going up to forty pounds and Jewfish that are so confident of their strength that they will tear 20 and 25 lb. Red Snapper from your spears.

To understand the physiology of diving in these waters you must first firmly fix in your mind the picture of an oil rig. A work platform consisting of drill rig, equipment, crew quarters and occasionally a helicopter landing platform, situated atop steel legs or caissons. The structure sits approximately fifty feet above the water. Below surface the diver sees these legs innerlaced with cross braces of 12 inch diameter, sufficient in number to enable the rig to withstand hurricane force winds and waves. Average size is about 80 ft. wide and 140 ft. long with pilings (inside caissons) going down as deep as 300 ft. in the mud bottom.

The first day of competition every one is in good form and spirits. Each boat usually performs at top level this

San Antonio Underwater Club members Braden, Riggins and LeBlanc gaze out of the specially constructed demonstration tank during the 1959 San Antonio Sports-Boat Show. Club members worked the entire show in two separate booths, greeting thousands of visitors and acquainted them with skin diving.

Peggy Marie Walker Photo.

first day with each member of the team trying to hold down his part. You may be sure that the buddy who Gold-bricks on this trip will not be cheerfully told to forget it. One or two of a three or four man team will hit the water at a close rig on the way out to deep water just to see what the visibility is and maybe get a big one.

The pride in winning these G.I.T.R. trophies is understandable once you look at it through eyes of a man who has been towed through barnacled cross beams by a four hundred pound Jewfish, while cuda circle you above and over a hundred feet of water stand between you and the surface. Perhaps if you have hidden a red snapper under you while cuda and Warsaw try to take him, playing peek-a-boo between pilings, you could see what we mean. Of course, sometimes it is easier than this, but you must all admit that everyone remembers the hard times.

On the third day a final effort seems to come from somewhere and the teams go about their business. Some of the big boats have to spend half the day just to come in from the far rigs. You can be sure that the deep rigs will be hit today by everyone who can reach them. Team members hit the water two at a time, search and hope a big one, will pass their way. Finally a flotilla of boats line up to parade themselves back to the headquarters. Tired groups head the boats back into shore, weaving through many oil rigs with their huge LST's moored to them.



You can't imagine the electric excitement that surrounds the scales that last night. Divers greet their buddies like long lost friends and celebrate their victories or bemoan their losses as the scales close at 6 P.M. The program is set for eight o'clock but already hundreds of people crowd the presentation platform and always there is a juke box blaring out noise in competition with the crowd. The victorious winners race around eating and dressing if they have the chance. There is a lot of boat hopping tonight and you may be sure that winner or loser . . . everyone has good time tonight. Meanwhile, visiting dignitaries mull through the crowd, politicians shake hands and fishermen tell more fish stories. The moment finally arrives. The Rodeo President introduced the Mayor who will award the skin diving trophies.

The Dixie Divers Club points with pride to the fact that 5 out of 6 trophies were awarded to teams made up of Dixie Divers. Dan Nelson of the Bajas, New Orleans, proved to the more experienced divers that he could dive and win against some of the best by winning the Sheepshead trophy with a 5 lb. 9 oz. fish.

The divers recuperate from the three days of diving and now point with pride to their souvenir scratches and bruises while they always seem to be sure and end their conversations with, "Are you going next year?" The answer is something like this, "Yeah, man, I'll be there!"

INSTRUCTOR'S CORNER

By NEAL HESS

Underwater Instructor
Certified by Los Angeles County
Training Director Boston YMCA Sea Rovers



During the past months since "Instructor's Corner" has been in existence I have received copies of instruction plans from many clubs, individuals and organizations. At first, I thought it might be best to consolidate all these into one overall minimum standard course. However, each lesson plan appears to be unique in that it reflects the personality of the instructor who wrote the plan. I am going to feel free to list the names of the instructors who have sent in excellent courses and let those of you who wish to obtain copies of these courses write directly to the instructor involved.

I was very impressed with the course given by John T. Miller, Instruction Coordinator of the Boeing Sea Horses, 7728 Lakeridge Drive, Seattle 88, Washington. He lectures before each lesson and then assigns instructors to each two students for an hour and forty-five minute pool session. The pool classes go on for five weeks followed by a graduation dive in the neighboring waters. Before the graduation dive the candidate for graduation must have passed a very stiff written examination. Here is a sample question. "Draw a diagram

of the ear including the outer and inner ear."

Mr. E. C. Pallamouter, Route 1, Box 56, Camas, Washington proves to be one of the most sincere instructors of all those who have written in to Instructor's Corner. His course consists of five lessons at a local pool including lectures. His is the only lesson plan that calls for dives in the pool to practice clearing the ears. His students also practice dives to learn to clear the snorkel. His lesson plan includes those so very important words "... the lecture has a better chance to convey the message to the class ...". This last is a point missed even in the training given to many certified instructors. Of course, as an instructor becomes more qualified to teach, the more his thinking is directed toward getting the message across. The instructor is already technically qualified.

Last month, we were discussing the first lesson and the objective thereof. Mr. George H. Curtiss, Chairman of Physical Committee, Mid-Country YMCA, Brentwood, Missouri writes: "Up to the present time the minimum age for this class (scuba) has been

eighteen years. However, recently a number of younger boys and girls as well as their parents have expressed an interest in this class and requested permission to enter the course." A difference of opinion exists among the instructors at the Brentwood, Missouri YMCA as well as among instructors over the whole United States. What should be the minimum age for scuba diving? Some clubs restrict membership to those 18 years and older.

Again and again, we are faced with the problem that to dive intelligently, a person has to have a mature frame of mind. We Americans like to classify maturity in physical age and in some cases, by so doing, make a pretty good mess of the situation.

For a rule of thumb, I start at the following generalization. If a person is 18 or over he probably is mature enough to begin learning in a scuba class by himself. If he is 16 years old and has an older buddy I will consider him for training. If he is fourteen years old and *only* if he is going to be diving with *his father*, I will also consider him for training. No other person will do, for only a father appears to have enough apprehension for his son to guide him in scuba diving.

During the pre-instruction period, I attempt to evaluate the young neophyte's philosophy of diving and of the world in general. In most cases, I find that I learn quite a bit and end up by taking the young potential diver. Now comes the rough part. Once he is accepted, it is less the maturity of the youngster and more my own maturity that determines the outcome of the lessons given. I never talk down to a young diver, nor do I treat him differently than I treat the older persons taking lessons with him. I show him that I expect of him the maturity of an adult.

I have found that it is the rare case where the young student, whom I have previously judged mature, does not do as well as the older people. In most cases, knowing he is allowed to dive as a result of mature thinking, he does better than many of the other students. Nevertheless, I always reserve the right to tell a student that he is not ready to dive and when I do so, they generally feel pretty bad. Yet, due to an adult approach, each youngster takes the advice and comes back after a few more years of snorkeling.

In this regard, I find that parents are much more difficult to deal with than the young man sixteen years old. The proud father really is hurt when any suggestion is made that it might be better if his son were to wait for a few years before joining the ranks of what he considers to be the only sport of many sports.

Look exciting? It was breathtaking!! Heart-thumping!! On a typical California diving boat trip to San Clemente Island the camera caught this diver just as he wrestled a twelve foot shark to the surface. The shark was spotted by several divers from the boat, but only this was brave enough to bring him up.



HAE-NYO GIRLS

(Continued from Page 27)

myself, but found that the contoured hard rubber skirt of the mask simply won't seat on an occidental face. I invariably came up with a face full of water.

The diving girls' spear is a straight wood shaft about four feet long, capped with a trident head for close range work among the numerous bottom rocks. It is powered with a two or three strand loop of live inner tube rubber fastened at the top. The diving girls use them like the familiar Hawaiian sling.

Hae-nyo don't use flippers. Most of their propulsive effect is won through an exceptionally clean and determined initial surface dive, followed by hand strokes to propel them horizontally underwater and steer them around rocks. They make dives to at least forty feet without difficulty, but seldom need to go that deep. The structure of the underwater shelf surrounding Cheju Island provides numerous seaweed beds and tempting homes for sea life within an easy thirty feet of the surface.

Just after surfacing, the divers exhaled with a hollow whistle. I first thought it was because they were just cold, but began to suspect some kind of a signal system as I thought about it. Later that summer I attempted to find out if my suspicion had been correct. With an interpreter I was able to approach a group of diving girls, and ask them if they whistle because they are cold. "Not cold," relayed my interpreter with a smile. Then I sprang the safety signal question. The resulting discussion and chuckles from the girls seemed to indicate I was on the right track. I was feeling rather smug when my interpreter turned to me.

"No signal," he said pleasantly. "Well, why in heck do they whistle," I retorted. "Don't know," answered Mr. Moon. "Just custom." And that ended the matter for the interpreter and the diving girls. The whistling habit has been around so long as part of the divers' trade that they have forgotten its origin and purpose.

After slightly more than a half hour by my watch, the string of Hae-nyo paddled to shore with their catch secure in the float-net, clambered barefoot over the rough rock and hurried with intent tread back to their straw fire. When they climbed out of the surf, their attention returned to the American stranger and his camera. Recalling clearly the previous encounter with carefully aimed rocks, I diplomatically withdrew and allowed the Hae-nyo to warm up and change to street dress in the seclusion of the wind-worn crevices.

As I walked back to the jeep and



SAM WATSON, vice president of the Underwater Fishermen of New Jersey, with three Striped Bass taken last July. The fish weigh 40, 15 and 25 pounds. Sam is a Striper record holder in New Jersey and the largest bass he has taken weighed 56 pounds.

pulled my collar tight around my neck, I recalled what I had read about the Island. Early Western visitors to Korea returned with tales of an island of Amazons south of the mainland. It was reputed to be solely inhabited by women in the beginning, necessitating yearly raids on the mainland to provide a crop of baby girls. These women, like their elusive Scythian counterparts grew up large and strong.

Truly, the coastal diving of Cheju Island today is exclusively female. Men engage in commercial diving only in

full helmet rig offshore where they gather shellfish from the reefs. Male skin diving is limited to entertainment. And on drives through the Cheju Island villages it is not unusual to spot a diving girl's house with husband out on the front porch tending baby while the Missus is underwater gathering the family bacon.

Whether the legend of the "Amazons" is true or not, the activity of these present day wonders who can skin dive circles around most of us leaves comfortable room for delicious thought. 🐟



Contest winner Jim Stark playing with the Porcupine fish.



One of the many beautiful stars seen on the bottom.



Bonny had a great time underwater. Here he is looking at his first live coral.

LA PAZ— UNDERWATER HEAVEN

(Continued from Page 41)

recognizable photo of it when it turned off to swim away. We returned to the boat to reload and catch our breath. Bonny meanwhile was engrossed in plain skin diving as he could not clear his ears well enough to use the lung. Logged three and three-quarter hours underwater.

December 25, 1958—Christmas Day—Bonny decided to stay in today and look the town over. Jim, Mel and Dick got under way about 7:30 and came to another good diving area about 10:30 and were under almost as soon as the anchor was dropped. Jim spotted a moray eel and decided to spear it. Just as he pulled the trigger the eel moved back into the rocks, and although he had aimed for the head he was not sure where the spear had entered. He decided rather than become a well-chewed diver to let out the line and work the spear free, vowing from here on to do his sharpshooting with a camera.

Later we stopped at North Island where we saw an abundance of seals and fish. We stayed here for the rest of the day to do our photographing. Much of the afternoon was spent just watching the seals doing their underwater stunting. Dick Strong shot many movies of them. Bonny said the whole trip would have been worth it just to see those seals underwater.

December 26, 1958—Our first stop did not prove too good, there seemed to be quite a lot of suspension in the water. We moved to another spot of shallow water where the two novice divers could work under Dick Adcock's instruction. Jim, Mel, Dick and Bonny spent most of the time just plain nosing around and collecting a few shells and starfish. The event of the day was all of us having our picture taken with a porcupine fish. Bonny was happy because he was able to get down to 35 feet without his ears bothering him.

December 27, 1958—We started out on a two-day trip, planning to stay on the boat at night and in the morning fall over the side in a diving area. We ran into several good sting rays lying on the bottom and took shots of them. While Mel changed film, Jim and Dick decided to go under and I took some pix of them from the dingy.

While changing film, I lost the roll with the pictures of the sting rays when a wave bounced the film out of my hand. After eating a good lunch, prepared by Dick and his helper, we moved to another spot where Dick put us down on an anchor lost by a good sized ship. After shooting photos of this from every angle, the tide began to change and the last few shots Jim made were with his legs wrapped around the fluke of the anchor to keep from being swept away. It was too late for any more diving this day, so we went to a small cove where we anchored for the night.

December 28, 1958—We woke up about 9:30 and were in the water at 10:15. Jim, Dick Strong and I went under to get more pictures and Bonny stayed aboard to get some sun. While Dick was changing film, Jim and I went down the anchor line to 80 feet and then out to where our depth gauges read 100 feet. As we started for shallow water Jim saw a sea turtle and tried to catch it, but could not get a good hold on it since one hand held his Rollei-marin. To be safe we spent four minutes on the anchor line at ten feet in order not to have any decompression trouble. After we surfaced we headed for a small cove in an island a few miles away. Dick Strong and I rowed into the beach while Jim, Bonny and Dick Adcock's son swam in. We found several shells of sea turtles, one of which was perfectly intact as far as the skeleton was concerned. We then headed back to La Paz for the last time . . . away from some of the clearest and most beautiful waters in the world.

December 29, 1958—This was our last day in La Paz and we spent it looking around the town and shooting the last of our film. We had Bill Escudero and Gil Limon from the airlines and Dick Adcock and his family for dinner to show our thanks for their fine hospitality while we were in La Paz.

December 30, 1958—We left our hotel at 6:30; the plane took off at 7:45 a.m. and after a very good flight we arrived in Juarez where we picked up our car and went on a shopping spree in order to take home delayed Christmas presents.

December 31, 1958—At 1:30 the car broke down and we had to be towed to Abilene, Texas, where the next day Jim paid for a new transmission and towing costs. We were on our way again at 5:10 p.m.

January 1, 1959—We arrived in Pittsburgh at 11:30 p.m. and were able to spend the last part of New Year's day at home with our families.

If you want some of the best virgin diving areas for photography, spearfishing and specimen collecting, be sure you get to La Paz.

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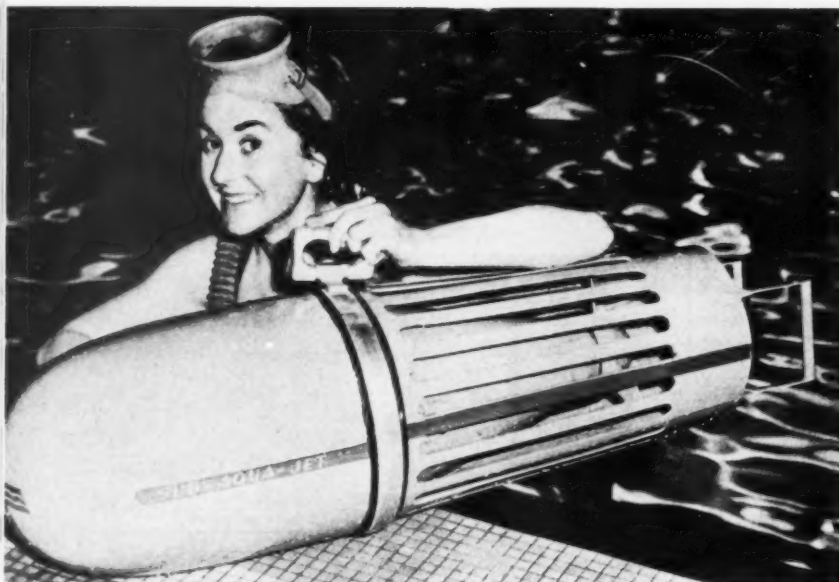
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Underwater Book Shelf Dept. SKIN DIVER Magazine Lynwood, California



Rowena Kerr demonstrates the Sub-Aqua-Jet. Speeds of about one knot at depths down to 100 feet are the manufacturer's claim for the Sub-Aqua-Jet (trade name) seen at Britain's National Boat Show in London. Made of fiber glass, three feet, three inches long, operated by a trigger on one of the handles, it can pull a skin diver for two hours on one battery charging. It carries a camera and lighting equipment and is produced by Tough Brothers Limited, Middlesex, England. Photograph by British Information Services.

QUESTION & ANSWER

COLUMN by TUSSEY

Answers to all of your diving questions will be answered in this column by D. R. Tussey, in the earliest possible issue.

What is the desired breath-holding ability in minutes, for an average descent into the one atmosphere level?

The phenomenon associated with breath-holding in skin diving offers a considerable field for further study. At the present time, no arbitrary time limit or other safety precautions can be provided but the employment of great moderation and common sense is clearly necessary. Thirty seconds is considered an average dive to the one atmosphere level.

Does a dry suit affect the ears the same way ear plugs do?

Yes! Creation of a closed space external to the tympanic membrane can cause injury similar to that seen in Eustachian tube blockage. Here hemorrhage may appear as a blood filled bleb on the external surface of the drum or in the lining of the canal. This may rupture and produce external bleeding in the absence of perforation of the drum. Avoid ear squeeze while using non-inflated suits with hoods by admitting air into the hood during descent. The diver can frequently do this simply by holding face mask firmly and blowing.

What should skin divers and scuba divers do in case of sharks when out of air and they must stay close to or on the surface?

Sharks are known to have the temperament of a dog and can be bluffed or scared off except when traveling in packs. Extreme caution should be used when sharks are sighted. Head immediately for the safety of a boat and never take your eyes from the sharks. If it is necessary to swim in areas where sharks are frequent, purchase some copper-acetate from your local chemical company as a repellent.

What kinds of places might have equipment to fill a lung tank?

If you are in an area where skin diving has not progressed rapidly and there is no certified air station, try contacting the nearest commercial oxygen company. They will supply you with air that is clean and safe to dive with.

I have heard divers speak of suffocation while using scuba equipment, is this possible?

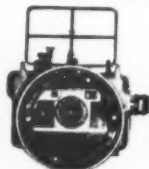
Suffocation is really only another form of carbon dioxide poisoning. It is a hazard faced especially by the neophyte divers with self-contained breathing apparatus. The greater the depth and the harder a diver works are the determining factors to suffocation. The denser air circulates with difficulty in the respiratory passages; carbon dioxide is not properly eliminated, respiration is faster and becomes irregular, then shallow, and unconsciousness may suddenly set in. To avoid suffocation the diver must control his efforts and breathe deeply and regularly. Stop all activity at this first sign of trouble.

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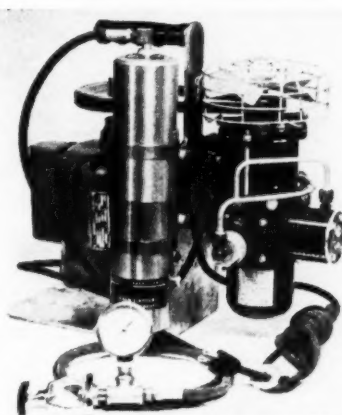
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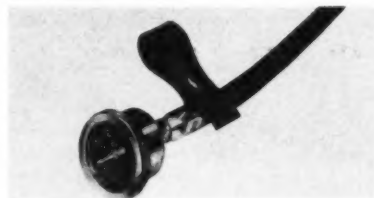
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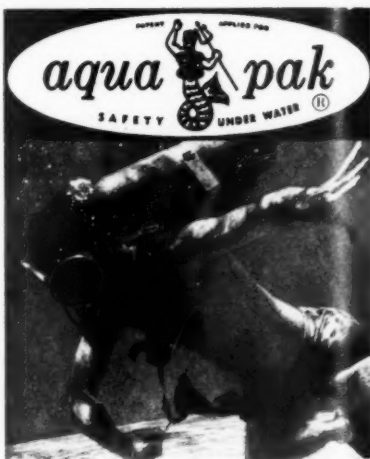
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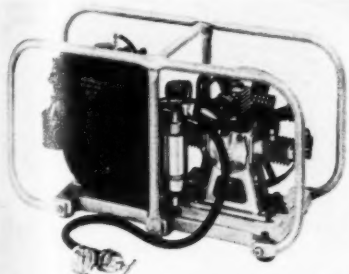
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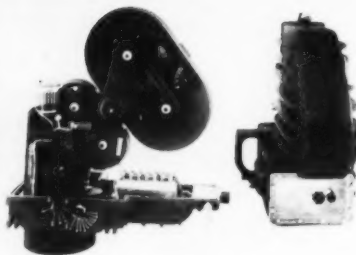
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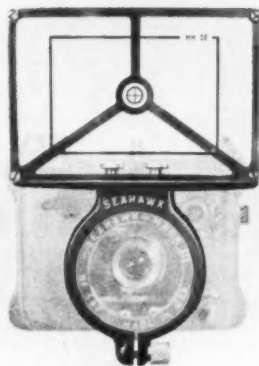
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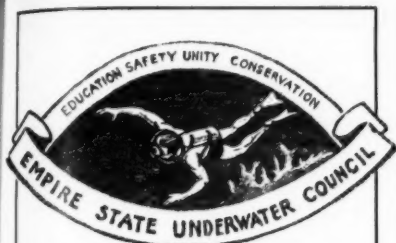
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By GENE PARKER

Johnson Road, RD #4
Scotia, New York

New York News this month features the Buffalo Aqua Club. Unfortunately, this story arrived one day too late to make the May deadline.

Ice Dive—Leonard Brogowski reported that Sunday, March 1, was bright and warm. The temperature at Willow Beach, Lancaster, New York, was 35°F. About 50 spectators watched five Buffalo Aqua Club divers plunge into the frigid water. The purpose of the dive was to gain experience and to experiment with various suits and combinations. Much valuable ice diving experience has been gained by B.A.C. divers in this and the three preceding dives of this season. Little by little the public is learning that skin divers are not a lunatic offshoot of the bareskin ice swimming faddists.

The divers were: Jack McCarthy, Ted Rattle, Leonard Brogowski, Tom McDonald, and Gene Herman.

The Buffalo Aqua Club meets at the Kensington Home Store basement every third Tuesday, and at East High School Swimming Pool every Wednesday night.

The B.A.C. is hoping to have a diving meet the middle of June, and would like to hear from any club that would like to come out. Visitors are always welcome to see the marine decorated clubroom. The address is: Buffalo Aqua Club, Kensington Home Store, 3041 Bailey Avenue, Buffalo, New York.

... And while we're on the subject of ice



dives . . . Here's old Parker, Ken Crosby and John McMullin disporting themselves in Saratoga Lake. John wore a 3/16" wet suit, Ken a dry suit over a 3/16" wet and I wore a dry suit over a 1/8" wet. This didn't prove very much, since we all declared ourselves to be quite warm and comfortable.

The greatest irony is to hear spectators, shivering in the cold wind, chatter "you darned fools are going to freeze to death!"

SKIN DIVER—June 1959

Underwater Sports Shop

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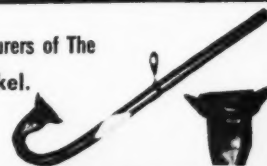
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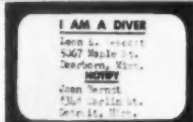
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P.O. Box 293
Englewood, Colorado

The sport of skin diving has started to mushroom here in Colorado and the members of our clubs have been pushing to form a state council. Consequently, a meeting was held by the Hi-Lo's, Porpoises, Acropoli, Water Jokers, and Mile-Hi clubs and the Council was formed. Lew Funk of the Mile-Hi club was elected first president; Owen Mikesell and Jim Smith of the Mile-Hi, Sergeants Bill Virtue and Wally Johnson, of the Lowry AAFB Water Jokers, Loren Belker and George Fischer of the Fitzsimons Porpoises, Cliff Malmquist and Gus Frindt of the Hi-Lo's, Don James and Chico Chicoine of the Buckley Acropoli were named to the Board of Directors.

A tentative constitution has been drawn up and we expect the final version to be ready for formal presentation to the clubs shortly. Letters have been seen out to other Councils asking for advice on problems likely to be encountered by a newly formed group such as ours. All clubs in the state of Colorado are invited to join, and any groups wishing to form a club need only to contact us to receive all the help we can give in aiding in the forming of any new clubs.

As our first project we set up a booth at the Boat Show in Denver, sponsored by the Dave Cook Sporting Goods Co. The exhibit included diving gear, movies, and a one-man sub made by Kenny Fick of the Hi-Lo's. We also went all-out to plug the Divers Flag. We distributed circulars and had flags and posters up in a number of the booths of boat dealers. The response we had to the exhibit was overwhelming and we still haven't been able to catch up on the correspondence brought about by the show. Only the wholehearted participation by all the clubs made the exhibit such a success.

Plans have been made by the Council to hold the Second Annual Colorado Skin Divers meet at Grand Lake again this year, and the town of Grand Lake is really giving us support. They are going to furnish trophies for all the events, hold a street dance for us, and just generally give us a lot of help in making it a big success. So, any and all divers who can come the 29th and 30th of August are cordially invited. We all had a grand time last year and this year will be even better.

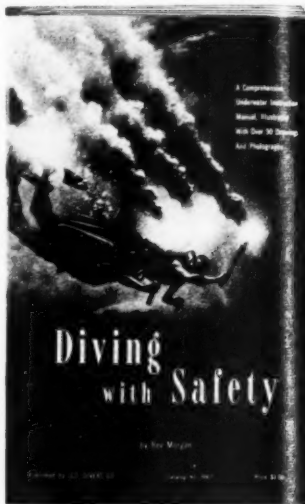
SOUTHEAST COUNCIL OF SKIN DIVING CLUBS

by Bud Cox

P. O. Box 42543
Miami, Florida

Southeast Council of Skin Diving Clubs—Miami, Florida—By Bud Cox—The Florida Upper Keys Kiwanis Club invited the SEC to present its case against the spearfishing ban that covers half of the Florida Keys. On April 16 Pappy Flood, Gene Shinn, Frank Shulski, Bob Wright and Bud Cox traveled

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A. MIKALOW, DIRECTOR

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70 miles to Tavanier for the presentation. As spokesman for the group Pappy stated the spearfisherman's position, but the reception was rather cool and the delegation returned to Miami with little accomplished. The consensus of the Upper Keys Kiwanis is that skin divers are welcomed to their area, but they must leave their spearguns at home. Only 30 percent of skin divers are spearfishermen, but there are spearfishermen in almost every group, so restricting one restricts the other.

The council was also invited to a panel discussion at the Chamber of Commerce meeting in April. We would like for all our Florida-bound friends to write to the Florida Upper Keys Chamber of Commerce, Tavanier, Fla., for information on this area, stating the number of persons in your party, plus the number of spearfishermen. Two staunch supporters we do have in the upper keys are Al Lanning and Tom Brown.

Chairman Don McGee of the trophy committee announces that trophies for the Miami Open are being donated by the Florida Frogman, Lou Maxwell.

Steve Reynolds and line fisherman Jay Wood gave us the following reports of the Homestead Air Force contest as taken from the base newspaper Alert:

Early one morning members of the boat crews of the Homestead AFB Boating Club arrived at the docks loaded down with diving gear in preparation for a diving contest to select a team to represent the base in future tournaments. The competitors were assigned to various boats and the competition was directed under the supervision of Col. Richard J. Wade, base provost marshal and one of the contest judges. Also judging the contest was Pappy Flood. First place was captured by Henry Lopez, with second going to Gary Cooper, third to George Brazee and fourth to Richard Zrudsky.

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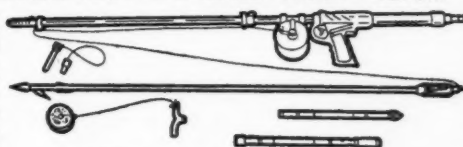
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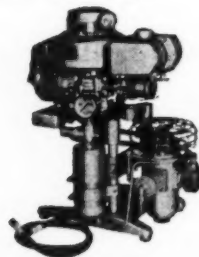
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NORTHEAST NOTES



By
B. W. LUTHER, JR.

Northeast Council
 of Skin Diving Clubs,
 P. O. Box 225,
 Fairhaven, Mass.

The Northeast Council held its second tournament meet of the season April 5th at Fort Phoenix, Fairhaven, Mass. The Fairhaven Whalers Skin Diving Club was the host club with William Swist, Richard Perry, Robert Lanagan, Robert Viator and Raymond Mathieu comprising the committee. Real treasure chests were the reward of the search and were filled with coins, jewels and equipment. The first place awards consisted of authentic, miniature sea chests supplied by an old sea captain.

The objects of the search were metal plates carrying various numbered combinations which would open the chests. 75 scuba divers, representing 21 clubs, participated in the hour-long event.

The South Shore Skin Divers, a recently formed club from the Quincy Y.M.C.A., took top honors as their President Gerald Campbell and Vice President Fred Alger returned with the correct combination for the scuba division. Bay State Aqua Club members Dave Blanchard and Stan Pinckney, familiar faces at tournament meets, scooped second place, while two real enthusiasts, Richard Craven and Council Director Joseph Gallant of the Maine Marine Alpine Club, found they had recovered the third place "key".

This is the second year the host club has held a Council-sponsored meet in the waters surrounding the famous colonial fort. Weather was characteristic of New England, strong southwest winds sweeping in over the Atlantic causing choppy waters and poor visibility. Safety personnel in the patrol boats turned to in an effort to keep their boats on station during the twin events. The snorkel event had 50 entries, which made a grand total of 125 participants. Ex-U.D.T. man, George Thomson, Executive Director of the Lowell Underwater Explorers, took first place in this division. The South Shore Skin Divers again shone by taking second place through their member Arthur May while Chile Tuttle, third place winner from the Agawam Skin Divers, didn't go home empty-handed either.

Council clubs which supported the tournament included: Agawam Skin Divers, Bay State Aqua Club, Boston Sea Rovers, Diving Belles, Fairhaven Whalers, Fall River Aquamen, Fitchburg Skin Divers, Lowell Underwater Explorers, Maine Marine Alpine Club,

Seventy-five scuba divers enter the waters near Fort Phoenix, Fairhaven, Mass., in the second NE Council seasonal tourney. Gerald Campbell and Fred Alger of the South Shore Skin Divers won the scuba division and George Thompson won the snorkel event.

Massachusetts Amphibs, Massachusetts Sea Lions, Middlesex Divers, New England Divers Frogmen, New England Scubaneers, New Hampshire Sea Skates, Sandsharks Diving Club, Semi-Panic Club, South Shore Neptunes, South Shore Sea Serpents, and South Shore Skin Divers.

Many other tournaments are planned by the Council clubs. May 24th the South Shore Neptunes held an Undersea Hunt at Sandwich Beach; June 21st the New England Divers Frogmen will sponsor a meet at Salem; July will find the running of the East Coast A.A.U. Spearfishing Eliminations and the surprise dive planned by the Fall River Aquamen; while Bay State Aqua Club has a quarry tournament scheduled for August. All events are part of the year-long Council point system which determines the most active and interested diver of the year. The season terminates in November with the installation and awards banquet.

It seems to be the month for club elections. From the reported returns it appears as though the following clubs have new key officers: Neptunoers of Greater Lynn elected Steven Jones as their president; Richard Weyland, vice-president; Joseph "Bud" Melanson, treasurer, and Wayne Morrow, scribe. The New England Divers Frogmen re-elected Andrew Konovalchik for a second term as secretary of the club, with Charles J. Crean as president. William A. Howard now occupies the treasurer's seat, and past president Frank Sanger, also a council director, has a respected position on the club's board of directors along with James Cahill.

Saint Patrick's Day found a lot of Irish (?) divers participating in the celebrations. The Fall River Aquamen and the Massachusetts Sea Lions both entered fine floats in their city parades, with the Fall River club taking second place honors for their display.

Earl Felch, Roger Haynes and Pat Baldasaro, of the Massachusetts Sea Lions caused quite a stir in the official forces back in March while the ponds were still covered by ice. It seems the group, preparing for an under ice practice, purposely walked out over thin ice until they fell through, thus providing themselves with firsthand information on thin ice rescue and the labor-saving device of not having to cut a hole. A bystander not realizing the situation called the official emergency forces, and within a short time eleven emergency vehicles were on the scene including fire trucks, police cruisers, a police boat and ambulance. The divers explained they were merely "taking a dip" as part of the emergency training of the club.



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ATLANTIC SKIN DIVING COUNCIL

By **DON BYERS**
4627 Verplanck Place, N.W.
Washington 16, D.C.

The Atlantic Skin Diving Council is still in the process of unwinding its first major training program for novice divers, and has profited by the experience with a streamlined

and more effective diving course for the final effort to turn out trained divers before summer exploring season arrives.

Dan Dunfee of the Undersea Lab and

Rusty Sherrill, Council vice president, labored into the small hours of a weekend last month to draft one of the most complete and intensified diving courses council members have seen.

Laid out in minute detail for students and instructors, the course compresses into a few pool side sessions what previously took months to accomplish in hour-long talks. Council members agree that long absences from the pool between training periods result in a loss of learning and technique.

The new training program was scheduled to start in April. Five sessions were to be held during the month, with two periods lasting eight hours.

Part of the need for organizing the new training program has resulted from the flood of applicants introduced to the Council through its participation in the Washington Home and Outdoor Show. So far, 184 new members have been added to the Council rolls following the diving demonstrations at the National Guard Armory here.

On the new club scene, ASDC is happy to welcome the new Maryland Underwater Explorers, piloted by Fred Willcutt. Fred's group will warmly greet any unaffiliated divers in the suburban Maryland area near

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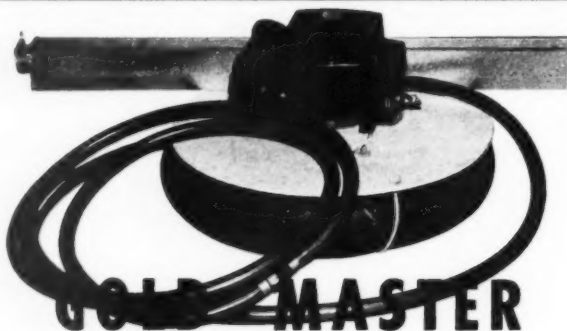
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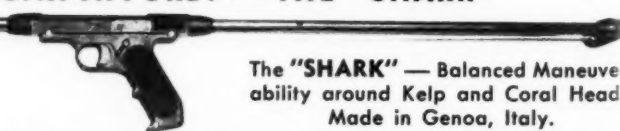
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OL 4-6775.

With the addition of the Maryland Under-
water Explorers, ASDC now has eight clubs
and over 200 members.

On March 22, seven Council divers drove
to Halltown, West Virginia, for another
plunge in the quarry. Main objective of the
dive was re-evaluation of an underwater
speaker system to be used for coordinating
training and the upcoming Spring Underwa-
ter Rodeo.

Voice signals from a standard microphone
and amplifying system are fed into two hy-
drophones with unusually excellent results.
On this dive power fluctuations in the port-
able generator damaged the amplifier and
forced a retreat to the workshop.

The Council will provide weekend diving
information with a telephone answering ser-
vice. Anyone in the area will be able to dial
a number and listen to a one-minute taped
message giving time and place of diving ac-
tivity. The number will be available later.

Atlantic Skin Diving Council's efforts to
publicize the Divers Flag have been very
successful. The Washington Evening Star,
in a cooperative move, printed a reproduction
of the Council's flag poster—and Council
members have been busy sticking posters to
the walls of boating centers and stores.

The Pioneers report a new recruiting of-
ficer. Bill Kibler will be happy to hear from
any Arlington, Virginia, and Northwest Wash-
ington divers who need a club. Bill's num-
ber is WH 6-7945.

And vice president Sherrill wants to extend
a welcome again to clubs interested in affili-
ating with the Council. Rusty can be reached
at 4104 South 33rd Street, Arlington, Va.

The annual Underwater Rodeo is planned
for June 7th at the Halltown, West Virginia,
quarry. This event will be open to all Council
members who can compete for trophies in
the target shooting event, the underwater
compass course and poker chip hunt. Miss
Atlantic Skin Diving Council will be
crowned.

Ohio . . .

**Seaway Divers—Toledo—Reporter Ben
Myers**—Another group of those rugged indi-
vidualists, known as skin divers, have joined
together and become as one through the for-
mation of the skin diving club, Seaway Divers.
Our headquarters are in the Catholic Club,
131 - 16th Street, Toledo, Ohio, where we
have the use of the swimming pool and a
meeting room.

We are a young and eager group, but quite
inexperienced, so we would appreciate any
and all advice that might be sent to us by
the older clubs which have been "through the
mill" or organizing. At the present time, we
have eleven active members who are waiting
in hopeful anticipation, as are most midwest
clubs, for the weather to break.

Toledo Submariners—Reporter Joe Zeller—
Our club had a very active winter season
initiated by a Christmas party in December.
Movies of shark reactions taken by Don Lea,
Jr. in the Florida Keys were shown. Don re-
cently resigned his position as club president
to enter skin diving as a full-time profession.
Larry Hecht, our vice-president, assumed his
duties as top officer. His first act was to com-
mend Don for his three years of selfless
service. Our meeting notices have taken on
a new look due to some clever art work by
Carol Everett, our secretary. In March, our
program included a booth and diving tank
at the Toledo Boat Show and a visit by a
group of divers from Cleveland. Our summer
activities started with the Fishing Derby (May
1, 2, and 3, 1959) held at Whitehouse
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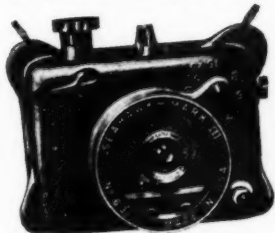
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John E. Burkett—There were no starting
guns to launch the Pismo Clam Dive at
Newport Beach, but at twelve noon invad-
ing forces from the San Dieguito Divers,
Long Beach Neptunes, Cahuamas Skin Di-
ving Club, independents and Newport Harbor
Sub-Mariners, which sponsored this Neutrena
Mills Pismo Trophy Dive, plunged through a
weak surf to ferret out the granddaddy Pismo
of them all.

The discoverer of the giant morsel, John
Miller, Sub-Mariner, claimed the giant trophy
which he says was doubly rewarding because
it's larger than his wife's trophy. For second,
clear water aided Y. Marques (Cahuamas),
who claims his skill stemmed from feeding
his eight children. Third went to the founder
of the Cahuamas at Placentia, David San-
chez.

Afterwards clam chowder composed by
twelve cooks and a can of jalapenos sent
everyone home in a warm (sic) happy mood.

California Marine Aquarists—Los Angeles
—Jerry Fawcett—The California Marine
Aquarists is a group dedicated to the keep-
ing of salt water fish and invertebrates alive
in small aquariums in the home.

Our last meeting featured a talk by Dave
Baldwin on collecting in Mazatlan, Mexico,
with a demonstration of his new slurp gun.
A slurp gun (to give an oversimplified de-
scription) is rather like a bicycle pump with
barrel and other parts of clear plastic to
make it invisible underwater. The action
is to SUCK the water into the barrel rather
than to blow it out. The weapon is from
two or four inches in diameter, three feet
or so long, powered by CO2 or surgical
rubber tubing. In collecting tiny fish for
aquariums the hunter maneuvers close to the
animals, points the weapon, pulls the trigger
and—S L U R P—lo, and behold, the
little beauty is in the tube.

It was also gadget night; everyone had
been invited to bring his favorite tools for
catching fish and bringing them back alive.
There were nets, small car (16 volt) com-
pressors to furnish air during transport, sel-
aerating buckets, pH meters and the like—
and ideas for many things not yet invented.

Those interested in attending a meeting of
this group should ask Jerry Fawcett, 2128 S.
Crescent Heights, Los Angeles, to put them
on the mailing list for bulletins, or call him
at WE 4-2734, evenings.

**Golden State Sea Searchers—Pacoima—Re-
porter David Smith—**Newly formed Junior
Club of the Golden State Sea Searchers held
its first meeting recently in Pacoima. The
Los Angeles County Junior Frogman course
was given by George Combe.

**Oceanside Green Dolphins—Oceanside—
Reporter Clyde Warner—**The Dolphins have
been busy diving every weekend all winter
from Laguna Beach to La Jolla. Limit
"takes" on the giant rock scallops filled
many a hungry diver's stomach.

Our President, Bud Dalton, resigned to
move to Hawaii. New officers are: Jack
Zimmerman, Denis Kirwan and Clyde
Warner.

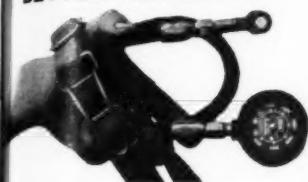
At the "Fun Dive," sponsored by the San
Diego Council of Diving Clubs March 22 at
La Jolla, Harvey Rau, club safety officer,
received a first place trophy for a horn
shark taken by hand; and Clyde Warner,
club secretary, received a second place trophy
for total aggregate of spiny sea urchins.

Proposed events are a star mop at the
Oceanside Pier at the height of the tourist

(Continued)

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season and a float for the Aquatic Parade
in July.

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side Park and Recreation Dept. We meet
the second and fourth Monday evenings at
eight at the U.S.O. Building. Anyone inter-
ested in diving in this area please con-
tact.

Connecticut . . .

Norwalk Skin Diving Club—Reporter
Gladys Johnson—The Norwalk Skin Diving
Club held its annual election recently at the
Norwalk Y.M.C.A. with Donald Lasky elect-
ed president. Other officers elected were
Gordon Johnson, Stuart Gish, Mrs. Therese
Lasky and Kenneth Wollett. Jack Shaugh-
nessy and Gladys Johnson were elected as
officers at large. Auditing committee mem-
bers are Manny Roggenstein and George
Peabody.

The club has made considerable progress
in the training program being offered to the
public. One twelve-week course in skin and
scuba diving was completed at the Y.M.C.A.
and a second is under way. The two final
scuba dives of the course will be held in
open water.

Young divers, up to 16, are being trained
in the use of mask, fins and snorkel. The
club, because of the increasing interest of
the young divers, is now forming a junior
skin diver course under the auspices of the
Y.M.C.A.

Barrascubas — Madison — Reporter Bill
Symmes—The Grove School recently orga-
nized an underwater and swimming club
consisting of eleven teenage charter members.
The name, Barrascubas, was derived through a
contest of the charter members, the winner
receiving a snorkel. The constitution gov-
erning this club is a modification of a sug-
gested form sent to us by *Skin Diver Maga-
zine*. The officers of the club are Sam Diack,
Steve Schimmel, and Bill Symmes.

Safety is stressed in both pool and class-
room. The club has rented the use of an
indoor pool to thoroughly train all of its
members. The instructor/advisor is Arthur
R. Satz, a competent and experienced diver.

Recently Art Satz, Sam Diack, and Vince
Sewall completed a very successful two-week
diving vacation in Acapulco, Mexico.

The Barrascubas, a teen-age group, are
well aware of the many problems of young
divers concerning safety and such. We would
be glad to answer any questions you might
have concerning safety or any other aspect
of the club. Copies of the constitution will
soon be available and we shall be glad to
forward copies upon request. Please address
all questions or requests to either Bill
Symmes, Secretary, or Art Satz, instructor/
advisor.

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GEORGIA STATE SKIN DIVERS ASSOC.

By Randall Shelnett

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Georgia State Skin Divers Association—By Randall Shelnett—At our monthly meeting, we were very pleased with the appointment of two of our members to the Board of Governors of the Underwater Society of America. They are George E. Krasle and Eugene D. Vezzani. It was reported that the Boston Convention was a tremendous success, with unity and a common purpose being agreed upon by all delegates attending. Due to the many lessons learned at the convention by Krasle and Vezzani, it was decided by unanimous vote of the Directors of the Georgia State Skin Divers Association to revamp our constitution pertaining to club entrance requirements. It was passed that no club with fewer than five fully active members would be admitted to membership in the Georgia State Skin Divers Association.

The Legislative Committee composed of Dr. Clyde Harrison, Darrell Agan and Bill Glass is preparing a bill that we hope will create a Skin Diving Commission in the State of Georgia. The purpose of this Commission will be the regulation of all skin diving activities throughout our state.

Jack E. Favor told of final plans and there is soon to be released an instruction manual for the training of the Georgia Fish and Game Commission, which is scheduled to go into effect approximately June 1st.

Also at this meeting, we were very pleased to accept for membership three of the most active clubs within the state. They are the Aqua Gators of Valdosta, the Snappa Diving Club and Senior Divers Club. We are happy to have these clubs in our Association.

The first Georgia Amateur Athletic Union open spearfishing meet is to be held at Morrison Springs with an expected turnout of eleven clubs competing.

Also pointed out during this meeting, by a member of the Florida Fish and Game Committee, was the tremendous amount of personal time and money being spent by Serge A. Birn, National Chairman, AAU Competitive Skin Diving Committee, to promote the sport of skin diving not only within our country, but in various other parts of the world. Mr. Birn is currently putting a lot of his time and effort into an overall program of national fish conservation, aimed at protecting the fish life in Florida and the Bahama Islands from wanton destruction by a very small minority of unscrupulous skin divers as well as line fishermen.

Any diver within our state wishing to become a member of our state organization, or wishing any information concerning a club in his local area, please contact us at 66 Pryor Street, Northeast, Atlanta, Georgia.

Albany Skin Divers—Reporter Jean Miller—The large turnover at Turner Air Force Base has lost us several members including the President, Secretary and safety officer. New officers were elected and they are Fred Eglin, Roger Wells, Jean Miller (Safety Committee), Shorty Norton, Mort Grennell, Fred Eglin and Roger Wells.

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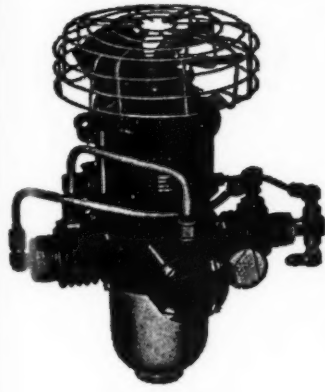
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Illinois . . .

Depth-Chargers—Norridge—Reporter Jim Paglin—The year started off with a bang, when we became incorporated and took in seven new members: Hal Wolfe, Jim Sullivan, Don Breske, Kip Laski, Jan Moore, Darwin Anderson and Ken Brandt.

We also elected officers, president Bob Luck, vice-president Bill Teeple, secretary Jim Paglin, treasurer Al Teeple, sergeant-at-arms Kip Laski.

Bill and Al Teeple have just returned from Florida with some very exciting underwater films. They also got some spearfishing in. "Hit any fish?" gasped Bill Teeple, "How could you miss?" They also have a two-month head start on us with their "golden brown" tans.

Indiana . . .

Silent Explorers—Gary—On December 13, 1958, the Y.M.C.A. started scuba diving classes in their pool. The classes at first were very small (4 students); but since that time the classes have reached over 50 students.

From the aforementioned came the formation of the "Silent Explorers" Scuba Club, which held its first election in April at the Y.M.C.A. The club officers elected were: Jack S. Torrence, Ronald Weaver, Alfred Boren, John Wilson and Jack Bucko.

As we are a new diving club, we would appreciate and honor all suggestions and correspondence from other diving clubs. Please write to Jack S. Torrence, 2620 Monnier Rd., East Gary, Indiana.

Washington, D.C. . . .

Sub-Committee—Washington, D.C. Y.M.C.A.—Reporter James E. Young—We of the Sub-Committee are still in existence and working harder than ever to perfect our skills through training and practice. Since training has finally come into its own as a necessary feature, we wish to contribute to the general movement toward standardization.

Not meaning to detract from the good work of the Greater Hartford Y.M.C.A. but only to set the record straight: the Sub-Committee conducted a similar "Underwater Clinic" at Hershey, Pa. in February of '56. Members of the Pennsylvania State Police Academy and Red Cross Water Safety instructors from the Harrisburg area, about 60 in all, attended. The Sub-Committee has conducted several other clinics for orientation of novice groups. We have found that efforts of this type stimulate interest and promote safety consciousness in groups with aquatic interests.

We have recently completed training a group of military officers and civilians at the Pentagon Officers' Club in skin and scuba diving. Currently we have a class of 32 (from 70 applicants) at the "Y" engaged in our 30-hour standard diver certification course.

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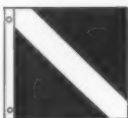
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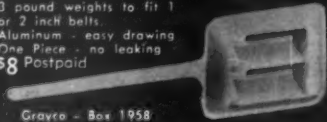


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Texas . . .

Dallas Divers Club—Reporter Rosemary Merriell—The spearfishing contest held at Possum Kingdom Lake on March 8, was unsuccessful for our divers. Visibility was next to nothing and the water was pretty cool. Another dive was held there on the weekend of April 11th, under better conditions. Visibility was about 20 feet and several fish were taken.

Many of our divers have made trips to Vera Cruz and several more plan to go. From all reports it is a very worthwhile trip.

The Club plans to have two official dives each month and we feel certain the coming season will be an eventful one. ➤

Michigan . . .

Gasco Scuba Divers—Detroit—Reporter Jim Keeney—The Scuba Divers held their annual election on April 1, 1959, and the following members were elected to office: John Wol-kow, Bob Pinkham, Jim Keeney and Norm Addison. Correspondence may be directed to: Mr. James Keeney, c/o Michigan Consolidated Gas Co., 415 Clifford Street, Detroit 26, Michigan.

Some of the more experienced divers reported satisfaction with through-the-ice dives and recovery work on sunken fishing shanties—visibility was very good. Diving teams from the club put on exhibitions at the Detroit Boat Show and Michigan Sportsman's Show. From the turnout in spectators it appears the public is highly interested in scuba diving.

Sea Kings Diving Club—Detroit—On July 19 the club will host the first annual invitational diving tournament. Plans for the tournament include a compass course dive and prizes will be awarded to both individuals and clubs.

The club was represented at the recent Michigan Boat Show held at the Detroit Artillery Armory. At least one club member was in the Michigan Council booth each day during the show. ➤

Missouri . . .

St. Louis YMCA Skin Divers—Reporter Paul Schultz—The St. Louis YMCA Skin Divers' annual trip will include a visit to Nassau this year! The success of, and the interest stimulated by, last year's trip to the Bahamas has resulted in planning a better trip for this year. The continued support and faithfulness by the scuba enthusiasts have made it possible for the YMCA to sponsor an even finer event for these members.

The trip will originate out of Miami and return there, after a five-day cruise aboard the Bahama Queen. The big dates for the event this year are June 29 through July 3. The itinerary for the cruise allows three days of diving and a day and a half at Nassau.

This year thirty-eight persons will make the trip. In planning, the Scuba Council set up two orientation meetings which the group will attend prior to leaving St. Louis. The purpose is to better inform and prepare them for the trip so that it will be more fully enjoyed. These meetings will cover information from safety standards, recognizing fish, to taking suntan lotion. The Council hopes that such meetings will prove most helpful.

Transportation to and from Miami will be by individual choice again this year. The group will assemble at the Bahama Queen's dock at 6 p.m. the 28th of June. From that time on, the thrill of another cruise commences. Five days of this for the skin divers from St. Louis! ➤

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RHODE ISLAND COUNCIL REPORTS

By JOHN J. McANIFF

184 Bellevue Ave.

Newport, R. I.

The big news from the 'littlest of the "50"' this month, concerns the forthcoming Atlantic Northeast AAU Spearfishing Championship. At a recent meeting of AAU and Council officials held at Norwalk, Connecticut, the sponsorship of this year's meet was placed in the hands of the Rhode Island Council of Skin Diving Clubs, Inc. and the officers of this group have since announced that the location of the meet will be the fabulous city of Newport, R. I., which is billed by the local chamber of commerce as "America's First Vacationland".

We extend a cordial invitation to all our readers to attend the finest resort area on the east coast for a wonderful vacation, and especially for the Atlantic Northeast AAU Regional Spearfishing Championship to be held on June 21, 1959, at Newport, Rhode Island. The complete details of the competition have been sent to all interested parties and in accordance with AAU national competitive rules this meet will be open to up to 25% of the teams entered in the various state or association eliminations, with a limit of four teams per elimination area.

It is important for us to point out that in the state eliminations each club may enter as many teams as it wishes instead of the previous method of one team per club.

Each club member entered in the eliminations must have an AAU card and his club must be an AAU member to enter in the Nationals. The entry fee has been established at \$15.00 per team (same as last year), to be paid by the team's club to the eliminations organization. This organization (council or association running the state elimination) will forward a \$15.00 fee for each team entered to the Rhode Island Council of Skin Diving Clubs, Inc. within the deadline specified in the competition announcement sent to all participating area Councils or state eliminations committees.

Three alternate sites in the Newport, R.I., area have been announced with the exact location to be chosen by the meet director one week in advance of the meet, subject to change by the meet director if conditions so dictate. The proposed sites are as follows: A. Brenton Reef Point. B. South of Brenton Reef Point to Castle Hill. C. Sachuest Point Reservation.

An excellent illustration of the wonderful cooperative spirit of the clubs in the Rhode Island Council is the following volunteer committee list for responsibilities in the Regional Championships: patrol boat committee, Newport Underwater Sportsmen; shore safety men committee, R. I. Underwater Spearfishing Club; property committee and registrations check-in committee, Narragansett Spearfishing Club; publicity committee, West Warwick Skin Divers; trophies committee, Little Rhody Sea Imps and the Aqua Knights. Other smaller committees are being handled through individual volunteers. This is the kind of teamwork which makes one proud to be a part of our fine sport of skin diving.

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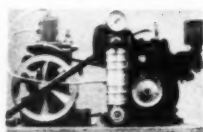
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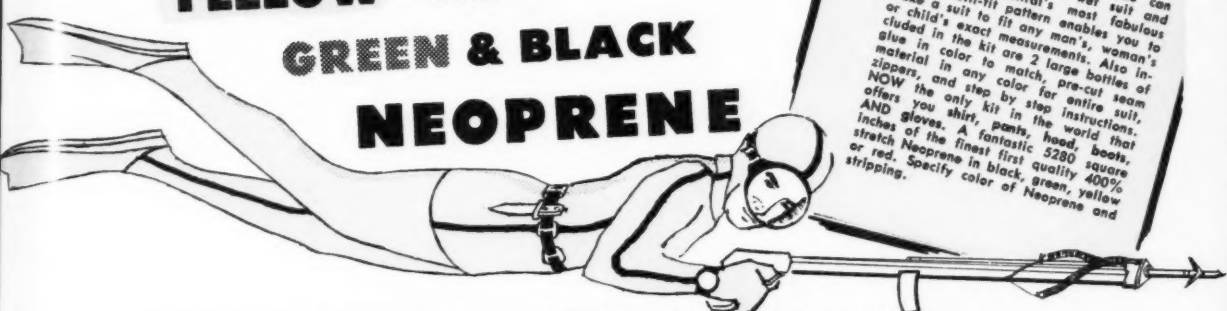
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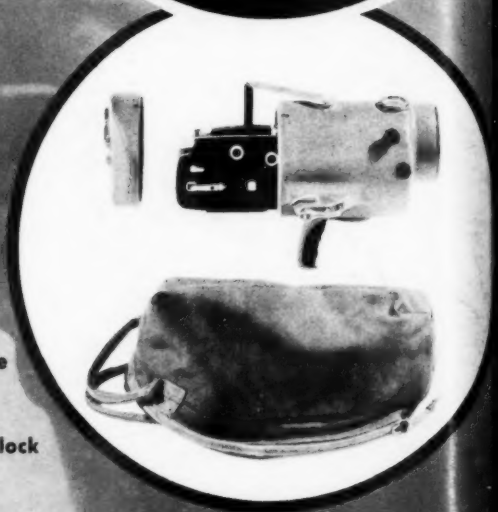
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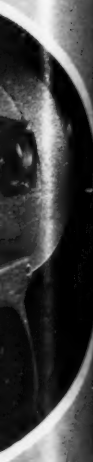
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